

## DOCUMENT RESUME

ED 287 029

CE 048 477

TITLE Postsecondary Vocational-Technical Training in Louisiana. Final Report.  
INSTITUTION Gulf South Research Inst., Baton Rouge, La.  
SPONS AGENCY Louisiana State Board of Elementary and Secondary Education, Baton Rouge.  
PUB DATE May 87  
CONTRACT 666-7009  
NOTE 259p.  
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC11 Plus Postage.  
DESCRIPTORS \*Accountability; \*Educational Improvement; \*Information Systems; \*Management Systems; \*Postsecondary Education; State Programs; \*Vocational Education  
IDENTIFIERS \*Louisiana

## ABSTRACT

This report recommends to the Louisiana Board of Elementary and Secondary Education initiatives to improve the management, information systems, and accountability of Louisiana's postsecondary vocational-technical system. Part I summarizes reforms in management of the vocational-technical education system needed to respond to economic and fiscal changes. These basic reforms are elaborated through 15 recommendations that have emerged from an analysis of the present system, a comparison with systems in other states, and interviews with over 100 people concerned with vocational-technical education in Louisiana. The recommendations, taken together, describe a system that redefines the governance structure of vocational-technical education in Louisiana. Part II provides an overview of Louisiana's publicly supported system for postsecondary vocational education. It addresses structure and organization, policy, management and administration, management plan, planning, budgeting and finance, service delivery, advisory boards, and articulation. Part III consists of 15 technical appendixes that are numbered to correspond to the 15 recommendations. Each appendix outlines the steps needed to implement a given recommendation and provides the background analysis that led to the recommendation. The recommendations are in three areas: improving overall system management, better management of programs, and improving accountability. (YLB)

\*\*\*\*\*  
\* Reproductions supplied by EDRS are the best that can be made \*  
\* from the original document. \*  
\*\*\*\*\*



GULF SOUTH RESEARCH INSTITUTE

Post Office Box 14787

Baton Rouge, Louisiana 70898

Telephone (504) 766-3300

ED287029

May 1987

FINAL REPORT

BESE Contract No. 666-7009

GSRI Project No. 2400-2323

POSTSECONDARY VOCATIONAL-TECHNICAL TRAINING  
IN LOUISIANA

Prepared for

State of Louisiana

Board of Elementary and Secondary Education  
Baton Rouge, Louisiana

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

☒ This document has been reproduced as  
received from the person or organization  
originating it.  
☐ Minor changes have been made to improve  
reproduction quality.

• Points of view or opinions stated in this docu-  
ment do not necessarily represent official  
OERI position or policy.

"PERMISSION TO REPRODUCE THIS  
MATERIAL HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES  
INFORMATION CENTER (ERIC)."

Prepared by

Gulf South Research Institute

OE-048477



The substitution of knowledge for manual effort as the productive resource in work is the greatest change in the history of work, which is, of course, a process as old as man himself. . . . Education has moved from having been an ornament, if not a luxury, to becoming the central economic resource of technological society.

Peter F. Drucker, Technology, Management and Society, 1977.

## PREFACE

The purpose of this report is to respond to the Board of Elementary and Secondary Education's (BESE's) request for recommendations that will enable the vo-tech system to better serve the needs of students and Louisiana's employers. It describes initiatives that would reward successful innovation, strengthen the overall management of the system, provide better information systems, and increase accountability. These reforms are vital because of the economic and fiscal problems confronting Louisiana and because of nationwide changes in the workplace propelled by new technologies and changing world trade patterns.

The strict time limit of 11 weeks from the beginning of the research effort to the presentation of this report required the assembly of a large team well-versed in vo-tech problems and policies. This team was led by Gulf South Research Institute and involved nine of its staff members. In addition, four staff members from Research Triangle Institute, North Carolina, and Roger Vaughan of Roger Vaughan Associates in Maine performed integral project duties. The Public Affairs Research Council also participated in an independent review capacity. The team was chosen for its familiarity with vo-tech issues in Louisiana and in other states, its background in education and economic development issues, and its understanding of the role of human capital investments in national and state development.

To work at high speed on a wide front, several research approaches were employed. One team reviewed documents pertaining to the present system (including budget reports, legislative analysis, and annual reports) and interviewed more than 100 individuals (including directors of all vo-tech schools, legislative staff, BESE members and staff, and the staff of several agencies) to compile the picture of the existing vo-tech system that appears as Part II of this report. Another team analyzed vo-tech systems, procedures, and policies in other states to distill the lessons for Louisiana. These findings are reflected in the 15 technical appendices that comprise Part III of this report.

A third team integrated the findings from these two efforts to prepare the 15 recommendations that are summarized in the first part of this report. To each of the 15 recommendations that are briefly described in the summary, there is a correspondingly numbered technical appendix that outlines the

steps needed to implement the recommendation and that provides the background analysis that led to the recommendation.

The recommendations, taken together, describe a system that redefines the governance structure of vo-tech in Louisiana. The reforms would transform a system that is under managed but over administered by delegating much of the day-to-day administration from BESE to the directors, while at the same time greatly strengthening BESE's ability to assess how well schools are training and placing students. This can best be accomplished through continuous and active support from, and accountability to, local vo-tech boards, which, in turn, would be accountable to BESE. Instead of BESE concerning itself with process, it would focus on outcomes. To improve the discretionary powers of directors, State funding would be allocated based on the number of students attending programs in each school. In the long run, the best form of accountability is the ability of schools to attract students based on how well they have trained and placed students in the past.

Many of these recommendations require painful adaptation; but without this transitional pain, the system may face a slow, chronic decline, left farther behind in a world that promises to become increasingly hostile to those without skills and the ability to regularly acquire new ones.

## PROLOGUE

Louisiana's postsecondary vo-tech system could be a more vital tool for creating economic opportunity if it had the capacity for greater responsiveness to the State's changing economic environment. Schools must be able to produce more versatile graduates, offer a wider array of services to employers, adapt more quickly to changing skill needs, and increase their capacity for promoting community economic development. The following illustrative cases suggest the overall direction in which Louisiana needs to proceed.

### Case 1: More Versatile Graduates

In a midwestern state, the Department of Education, which oversees the vo-tech system, received growing complaints from employers that vocationally trained graduates were not easily retrainable for new equipment and processes. At the same time, basic skills courses offered by local school districts were poorly attended. Working with a panel of employers, the Department designed stronger reading and mathematical skills requirements for several key vocational programs. At the same time, it evaluated model programs for teaching basic skills and distributed a report summarizing successful initiatives to all vocational centers. As a result, several employers changed their investment plans and expanded local plants to take advantage of the better trained and more trainable workforce produced by these programs.

### Case 2: Serving Employers

When two major local employers shut down, the director of a vocational school in a western state found that shrinking enrollment threatened a computer sciences program of which he was justly proud. The director aggressively and widely marketed his program by using state-compiled statistics showing that his computer program placed graduates in better jobs than similar programs in other schools. Enrollment in the core program increased. Impressed by the competence of the institution, local employers began using the school to provide customized training for their workforces whenever they acquired new equipment or software. The generated fees allowed the school to update its equipment and hire extra teaching staff.

### Case 3: Adapting to Changing Skill Needs

The changing economy in a rust-belt community caused problems for its vocational school. Although the demand for health services skills was growing, there was no additional space for students. Also, the large industrial engineering programs for which most of the facility had been built attracted one tenth of their former enrollment, and most of the machine shops were empty. Given the state's fiscal condition,

it was unlikely that any state dollars would be available for an expensive conversion. The director brought together a consortium of local machine tool firms to set up a Computer Assisted Design-Computer Aided Manufacturing (CAD-CAM) Center in an unused building. The Center was paid for by the firms but supplemented by Job Training Partnership Act (JTPA) funds. With the tuition revenues derived from training displaced workers in CAD-CAM techniques, the director was able to lease laboratory space from a local hospital to train additional health technicians.

#### Case 4: Promoting Community Development

A vocational center in a small, remote, rural community suffered from the vagaries of the agricultural economy. Since there were few local jobs, most vo-tech graduates did not remain in the community. Recognizing that new industry was unlikely to move to the community, the school director sought to stimulate the economy from within. He created an Enterprise Assistance Program to encourage local residents to go into business by recruiting a local banker and two small businesses and by providing accounting and management staff from his faculty. The program has helped nearly a dozen farmers market non-traditional crops, created a score of new enterprises, and assisted a number of existing firms to survive or expand. The program is not an accredited state program and survives by collecting fees from assisted enterprises and a grant from a local bank.

These are examples of innovative and flexible vocational education programs serving local economic and social needs. Such things could be accomplished in Louisiana only with great difficulty, despite the many strengths of Louisiana's postsecondary vo-tech system. Innovations such as these could be repeated throughout the State if the recommendations made in this report were adopted, especially those pertaining to locally administered schools. The recommendations provide a strategy for flexibility without instability, effectiveness without redundancy, and efficiency without inequity.

## TABLE OF CONTENTS

| <u>Part</u> |                                                     | <u>Page</u> |
|-------------|-----------------------------------------------------|-------------|
| I           | SUMMARY AND RECOMMENDATIONS. . . . .                | 1           |
|             | Section A: IMPROVING OVERALL SYSTEM MANAGEMENT. . . | 1           |
|             | Existing Conditions . . . . .                       | 5           |
|             | Recommendations . . . . .                           | 9           |
|             | Section B: BETTER MANAGEMENT OF PROGRAMS. . . . .   | 12          |
|             | Existing Conditions . . . . .                       | 12          |
|             | Recommendations . . . . .                           | 14          |
|             | Section C: STRENGTHENING ACCOUNTABILITY . . . . .   | 17          |
|             | Existing Conditions . . . . .                       | 17          |
|             | Recommendations . . . . .                           | 19          |
|             | CONCLUSION . . . . .                                | 23          |
| II          | EXISTING SYSTEM. . . . .                            | 25          |
|             | Structure and Organization. . . . .                 | 25          |
|             | Policy. . . . .                                     | 26          |
|             | Management and Administration . . . . .             | 29          |
|             | Management Plan . . . . .                           | 30          |
|             | Planning. . . . .                                   | 32          |
|             | Budgeting and Finance . . . . .                     | 33          |
|             | Service Delivery. . . . .                           | 37          |
|             | Advisory Boards . . . . .                           | 40          |
|             | Articulation. . . . .                               | 41          |
| III         | APPENDICES                                          |             |
|             | Section A: IMPROVING OVERALL SYSTEM MANAGEMENT      |             |
|             | Appendix A.1: POLICY. . . . .                       | A.1-1       |
|             | Appendix A.2: EVALUATION. . . . .                   | A.2-1       |
|             | Appendix A.3: AUDIT . . . . .                       | A.3-1       |
|             | Appendix A.4: DELEGATION. . . . .                   | A.4-1       |
|             | Appendix A.5: ARTICULATION. . . . .                 | A.5-1       |
|             | Section B: BETTER MANAGEMENT OF PROGRAMS            |             |
|             | Appendix B.1: DISCRETION. . . . .                   | B.1-1       |
|             | Appendix B.2: PLACEMENT RATES . . . . .             | B.2-1       |
|             | Appendix B.3: ASSESSMENT. . . . .                   | B.3-1       |
|             | Appendix B.4: COMPETENCY. . . . .                   | B.4-1       |
|             | Appendix B.5: CAPITAL BUDGETS . . . . .             | B.5-1       |



TABLE OF CONTENTS (Cont'd)

| <u>Part</u>   |                                     | <u>Page</u> |
|---------------|-------------------------------------|-------------|
|               | Section C: IMPROVING ACCOUNTABILITY |             |
| Appendix C.1: | FORMULA FUNDING . . . . .           | C.1-1       |
| Appendix C.2: | LOCAL BOARDS. . . . .               | C.2-1       |
| Appendix C.3: | LOCAL FUNDING COMMISSION. . . . .   | C.3-1       |
| Appendix C.4: | SELF-GENERATED REVENUES . . . . .   | C.4-1       |
| Appendix C.5: | STUDENT FINANCE . . . . .           | C.5-1       |

Part I

SUMMARY AND RECOMMENDATIONS

Part I  
SUMMARY AND RECOMMENDATIONS

This report recommends to the Louisiana Board of Elementary and Secondary Education (BESE) initiatives to improve the management, information systems, and accountability of Louisiana's postsecondary vo-tech system so that its schools can function more responsively, effectively, and efficiently. The premise is not that the system has failed. Louisiana's many fine vo-tech schools, innovative directors, and dedicated staff are the strengths upon which the recommendations build. Nevertheless, the economic and fiscal conditions that shaped the present governing structure have changed. Irreversible shifts in technology and world trade are rapidly transforming the State's economy and have sharply reduced its fiscal resources.

Responsiveness to these changes requires basic reforms in how the vo-tech system is managed. The shift to an appointed superintendent of education answerable to BESE and with the staff of the Department of Education as a resource presents an unparalleled opportunity. The needed reforms may be summarized as follows:

- A. BESE SHOULD CONCENTRATE ON THE OVERALL MANAGEMENT OF THE SYSTEM AND SHOULD DELEGATE AUTHORITY FOR DAY-TO-DAY OPERATION OF THE SCHOOLS TO THE DIRECTORS AND TO NEWLY CREATED LOCAL VO-TECH BOARDS. BESE's role should be: (1) determining the overall system purpose; (2) determining how well schools and programs are performing according to clearly defined, measurable, and attainable goals; (3) ensuring compliance with State and Federal regulations; and (4) encouraging cooperation with other agencies. By performing these tasks well, BESE can mold a coherent system out of 47 independent schools. Recommendations for strengthening BESE's capacity to perform its functions are made in Section A of this summary.
- B. BETTER MANAGEMENT INFORMATION SYSTEMS SHOULD BE DEVELOPED FOR BESE AND FOR SCHOOL DIRECTORS. BESE needs reliable data to set overall policy, to evaluate how well the system is performing, and to ensure that all institutions and programs are complying with Federal and State laws and regulations. At the same time, directors need better information to help guide program management. By giving greater administrative discretion and better administrative tools to directors, the State can better realize system potentials. Recommendations

for improving information systems without overburdening directors are described in Section B of this summary.

- C. ADMINISTRATORS SHOULD HAVE A VESTED INTEREST IN AND BE HELD ACCOUNTABLE FOR THE SUCCESS OR FAILURE OF THEIR DECISIONS. Accountability encourages vo-tech directors to weigh alternatives carefully and protects the taxpayer's growing investment. The way in which funds flow from the State to the schools is the most important mechanism for ensuring accountability. A State formula for allocating funds and steps to allow greater local fiscal discretion are discussed in Section C of this summary.

These basic reforms are elaborated in this summary through 15 recommendations that have emerged from a rigorous analysis of the present system, a careful comparison with systems in other states, and interviews with over 100 people concerned with vo-tech in Louisiana, including BESE members; BESE and Department of Education staff; the directors of all of the schools; the directors and staff members of the State Departments of Labor, Health and Human Resources, and Commerce; members of the Legislature; and legislative staff.

Together, these recommendations provide the framework for a new way of managing postsecondary vocational education in Louisiana that harnesses the resources of the present system more effectively in the pursuit of State economic and social objectives. Ultimately, the details must be worked out through continuing discussions among legislators, BESE, and school directors, since a system imposed from above would fail to create the flexibility demanded by the changing workplace and would not engender the cooperation required for success.

The existing and proposed postsecondary vo-tech system is briefly diagrammed on the following page.

|             | <u>NOW</u>                                                                                                                                                                                                                                                | <u>PROPOSED</u>                                                                                                                                              |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LEGISLATURE | Appropriates budgets to schools annually with no uniformly accurate information about performance, costs, or demands.                                                                                                                                     | Appropriates vo-tech fund, which is allocated among schools according to formula based on actual contact hours.                                              |
| BESE        | Sets policy, hires, and approves spending and curricula and other matters with unreliable data and few analyses, which results in decision-making log-jams and inflexibility applied systemwide. Concentrates on administration at the expense of policy. | Sets policy and evaluates and audits school performance without regulating details. Decisions based on good data and analysis using combined DOE/BESE staff. |
| SCHOOLS     | Little discretionary authority to make programmatic decisions, little flexibility, and little reward for successful innovation. Schools are simultaneously over administered and under managed.                                                           | Decentralized control, funding based on students, and accountability to local boards and to BESE for oversight.                                              |

Section A  
IMPROVING OVERALL SYSTEM MANAGEMENT

The effectiveness of a state's training system is created and maintained by good decision making. Some decisions are concerned with overall training policy:

- . What is the purpose of the vocational-technical system?
- . How should the vo-tech system be financed?
- . How should vocational education relate to other education and training programs?
- . How should current programs and institutions be assessed?

Other decisions are concerned with the day-to-day management of individual programs and institutions:

- . What courses should be offered?
- . How should they be taught?
- . Who should teach them?
- . In what facility?
- . With what equipment?

Louisiana has created a governance structure to answer these questions that has overseen the rapid emergence of an extensive system of schools with a staff of approximately 1,100 teaching approximately 20,000 students. This management system has emerged from enabling legislation, annual budgets, rules and regulations adopted by BESE, and management measures adopted by individual directors. The system is highly centralized and highly autonomous. It places almost all decision-making responsibility with the State, but does not provide the tools needed by the State to exercise oversight with respect to system performance. This structure may have been appropriate while the system was emerging and while the types of skills demanded were more predictable, but the system is now mature, and the economic environment demands greater adaptability. As a result, there is widespread recognition that changes are needed.

At present, BESE cannot manage the overall system in an optimal fashion. The concentration of administrative decision making within



BESE prevents it from devoting the resources needed to set overall system objectives and to monitor how well schools are performing. These problems can be overcome by using new opportunities for closer ties with the Department of Education, delegating decision-making authority to schools and newly created local boards, and generating better information.

#### EXISTING CONDITIONS

To make the system function optimally, BESE must: (1) define the overall purpose and set the objectives of the vo-tech system; (2) evaluate the performance of local directors; (3) ensure that funds are spent in compliance with Federal and State laws and regulations; (4) ensure that directors have the authority and the resources to pursue objectives; and (5) link vo-tech with other State education and training programs. At present, BESE cannot effectively discharge any of these responsibilities because it is too closely involved in giving prior approval to administrative decisions in the running of individual schools and has too few staff.

#### Setting Vo-Tech Policy

The overall purpose of the system is not clearly defined, which makes it difficult for directors to decide how to best deploy their resources. "We get conflicting messages about what our goals and purposes are," one director told GSRI. The latest program plan for the system, adopted in 1982, repeats the Federal enabling legislation (P.L. 94-482) but does not offer a clear statement of the purpose and objectives of the system. The absence of a mission statement is most noticeable when painful budget cuts must be made since the criteria for such cuts are not readily apparent.

Although the enabling legislation has served to guide the rapid emergence of vocational education in Louisiana, today's economic and fiscal environment demands greater flexibility and efficiency. In vo-tech systems throughout the country, major policy changes have been made during the 1980s to reflect changing economic conditions and the need for a greater emphasis on the teaching of basic skills and the redesign of courses to teach "clusters" of skills. Examples are provided in Appendix A.1, which summarizes recent comprehensive policy

revisions implemented or proposed in Texas, Minnesota, North Carolina, Illinois, and Colorado.

Undertaking major changes in policy requires the capacity to analyze issues. BESE has neither the staff nor the time on its full agenda to research and consider major policy issues systematically. With the exception of the budget cutting process, BESE did not employ any background analyses in making major policy decisions in 1986. In part, the problem appears to result from the full administrative agenda BESE faces at its monthly meetings that prevents devotion of greater time to overall policy issues.

#### Evaluation

To manage the vocational system, BESE must be able to measure how well individual programs and schools are performing and must be able to act on these data. Yet, at present, BESE has neither the data needed to evaluate performance (see Section B) nor the staff capacity to analyze the data regularly. In addition, it shares this vital oversight function with several other State agencies, with the result that no single agency does the job well. One director stated:

"We work under very difficult circumstances. I am not sure who we work for. BESE approves most of our things, sets policies, and we live by the policy manual that they establish. T&I pretty much has a grip over our day-to-day operations, evaluates programs, certifies our teachers, and checks our budgets. The Department of Education receives our correspondence and rules on our requests before they go to the Board. And the Department of Administration and the Legislature approve our funding. Any one of these entities has a lot of control."

#### Audit and Compliance

BESE, together with the Division of Administration, is responsible for ensuring that possibilities for fraud and abuse are limited and that Federal and State funds for vocational education are spent according to rules directing the schools toward serving target groups. However, no clear allocation of responsibility between these agencies has been established, and staff resources are insufficient to audit all schools annually and to perform in-depth audits on problem institutions. Also, audit practices merely fulfill Federal

requirements and do not serve broader evaluation goals. For example, standardized operating and capital budgets that provide estimates of real training costs have not been developed.

#### Authority and Resources

BESE maintains extensive authority over the day-to-day management of schools and programs. This prevents BESE from concentrating on managing the overall system and severely limits the ability of directors to meet local needs quickly. One director stated: "We used training as an inducement for industry to locate here. They built, moved in, and began operations--training their own people before we could get approval. We still haven't done any training for them." Another director regretted: "I don't have the enthusiasm I had before. . . . And I think the major reason is because I feel so hemmed in by so many rules. . . . It's very hard to be innovative today, very hard."

Of the major decisions made at BESE meetings over the last year, 60 percent were concerned with matters pertaining to single schools. A recent report published by the Department of Education concluded:

Unlike private business and educational alternatives offered by proprietary schools, vocational education in the public sector is hampered by slow reaction to needs.

New course requirements including modifications and additions require too long to identify, develop, and implement. Expanded enrollment demands are not met and result in lengthy delays for prospective students. Courses no longer relevant to student needs are not abandoned in a timely fashion (An Assessment of Vocational Education Marketing in Louisiana, 1986).

Shifting resources out of shrinking programs into expanding ones occurs slowly because of the way in which budgets are compiled (see Section C, below). It is unrealistic to expect that many day-to-day decisions can be made by BESE as well as they can by school directors. The latter enjoy much more detailed information about local conditions, have significant capacities in their staff and facilities, and know more about local opportunities.

### Articulation With Other State Agencies

Vocational training must be effectively integrated with other State human resource development programs. Graduates may wish to further their education at State universities, skills may provide dislocated workers or welfare recipients with an escape from dependence, job skills training may need to be supplemented with basic skills training, and vo-tech graduates may need help in finding suitable employment. At present, links between the vo-tech system and other State agencies are not strongly developed, and in some instances barriers are encountered (see Appendix A.5). For example:

1. As a practical matter, BESE has delegated the authority to administer and deliver adult education services in the State's prisons to the director of the vo-tech school that is nearest to each correctional facility. Additionally, BESE and the Department of Corrections have designated a single vo-tech school director as coordinator for all adult education programs throughout the correctional system. However, this coordinator has almost no funding or legal authority. Although there is some coordination, the Department of Corrections must work with nine (soon to be 14) different directors. There is no functional office vested with the authority to manage the system as a whole, nor is there an individual position vested with the systemwide authority to manage educational services and to cooperate and negotiate with the Department of Corrections. This somewhat fragmented management structure has given rise to recurring administrative and management problems between vo-tech directors and the Department of Corrections.
2. Welfare recipients are not systematically tested to determine their aptitudes, nor are they informed of vo-tech and other training programs and provided with the assistance needed to enroll in fulltime training.
3. The Employment Service does not as a matter of course inform the unemployed that they can enroll in training programs without loss of benefits and that there are training opportunities at vo-tech schools.
4. Although budget cuts have severely limited the ability of schools to provide remedial education and basic skills training, articulation between vo-tech schools and parish school boards is poor in many instances.

In summary, in discharging its constitutional responsibilities, BESE has insisted on approving virtually all decisions, including the

details of training programs, expenditures, and hiring. Yet, BESE has little data to weigh these decisions and to determine how well the system is working. The recommendations listed below are intended to strengthen BESE's capacity to manage the system, reduce decision-making bottlenecks, and improve articulation with other agencies.

General George S. Patton once advised: "Never tell people how to do things. Tell them what you want and they will surprise you with their ingenuity." Delegating administrative responsibility to directors will allow the system to make greater use of their creative powers. If BESE appoints qualified people to direct the schools and monitors how well they do their jobs (for example, through information on acquired skills and job placement), BESE will not have to regulate how directors run their training programs.

#### RECOMMENDATIONS

In order for BESE to be able to manage the overall vocational system with greater flexibility and oversight, GSRI recommends that BESE expand its capacity to analyze policy issues, evaluate programs, and audit schools. BESE should reorganize its staff to reflect the importance of these three functions. To allow BESE and its staff to concentrate on these tasks, day-to-day management of the system should be delegated to directors. Finally, to make better overall use of State resources for human development, BESE should develop model programs for interagency cooperation.

##### Recommendation A.1: BESE Should Strengthen Its Capacity to Analyze Vocational Education Policy Issues.

This will require BESE to take three steps: (1) clearly define the overall purpose of the system and link this purpose to measurable and attainable objectives for schools; (2) set an annual policy agenda outlining no more than 10 issues that will be reviewed by research staff; and (3) establish staff--both in-house (an office of policy analysis) and in related agencies such as the State Advisory Council for Vocational Education--to research priority policy issues. Policy reports should be distributed to directors, enabling them to participate in the process of policy formulation and to understand the reasoning behind BESE decisions. The policy analysis office would therefore serve as a conduit for bringing new ideas into the system and for identifying program initiatives that could be used systemwide.



Recommendation A.2: BESE Should Expand Its Capacity to Evaluate the Performance of Directors and Programs by Collecting Better Data and Scheduling Regular Evaluation Meetings With Directors.

This will require BESE to take three steps: (1) establish measurable goals for schools and programs; (2) systematically collect and analyze data that reflect how well these goals are being met--including data on costs, student enrollment, skills attainment, and job placement (procedures for collecting these data are described in Section B, below); and (3) conduct regular performance reviews of each director (together with his or her local board--see Section C, below) to assess the strengths and weaknesses of the school and to determine what steps will be taken to rectify any problems.

The office of evaluation within BESE would be responsible for assisting local programs to acquire accreditation from regional agencies and for determining eligibility for student aid. It would also be responsible for suspending eligibility for programs that failed to meet minimum program standards defined in terms of the number of students or cost per student, competency testing rates, placement rates, and other qualifications established by BESE (see Appendix A.2). These functions are performed by the state policy making agency in most other state systems.

Recommendation A.3: BESE Should Organize and Strengthen Its Audit and Compliance Capacities.

BESE must shift from control through cumbersome prior approval to control through effective post-audit. This will require BESE to take three steps: (1) improve the quality of information available to auditors; (2) expand the capacity of audit staff by creating an audit office; and (3) clarify audit responsibilities among BESE, the Division of Administration, and other agencies.

Recommendation A.4: BESE (and the Division of Administration) Should Delegate Day-to-Day Administration of Programs and Schools to Directors and the Proposed Local Vo-Tech Boards.

All decisions regarding expenditures below \$50,000, hiring and salary (other than the position of director), program offerings, and budgets (see Section C, below) should be at the discretion of the director, although subject to audit and evaluation by BESE. This delegation of authority must be accompanied by greater accountability, which would be based on better performance data, formula funding, and the creation of local vo-tech boards (described in Section C, below). BESE's concern should be with the outcomes of the management decisions of directors, not with making those decisions.



Recommendation A.5: BESE Should Develop Cooperative Programs  
With Other Agencies.

The most important areas for improving cooperation are:

1. High Schools. A program should be developed that allows wide participation by high school students in postsecondary vo-tech programs.
2. Human Service Agencies. Welfare recipients should be better informed about vo-tech programs and student assistance. Welfare programs should not discourage participation in training and should offer support services such as daycare, transportation, and financial assistance.
3. Employment Service. The unemployed should be better informed about their ability to participate in training programs and about access to financial support.
4. Prisons. Prison adult education programs throughout the State should be administered, managed, budgeted, and evaluated as a separate educational unit.
5. Curriculum Lab. The Vocational Curriculum Development and Research Center should be administratively removed from Region 7 and should report directly to the Trade and Industrial Education section of the Office of Vocational Education within the State Department of Education.

Section B  
BETTER MANAGEMENT OF PROGRAMS

To manage vo-tech schools efficiently, directors need: (1) a clearly defined statement of purpose; (2) the financial, physical, and human resources necessary to operate training programs; (3) the authority to deploy those resources where they can be used most effectively; and (4) reliable information that allows directors to weigh the consequences of their actions. The Legislature and BESE must ensure that decision makers enjoy sufficient discretionary power and enough information to make the best use of their resources, and decision makers must be held accountable.

Four types of decisions should shape investments in postsecondary vocational education. First, BESE should set vocational education policy based on analyses of the economic environment and system performance. Second, directors and their staffs should make administrative decisions based on data about costs, industry demands, and the successes or failures of graduates. Third (and often forgotten), students should decide what programs to enroll in and where to enroll based on information about the employment prospects associated with different skill levels and the placement rates in different schools. And fourth, employers should decide what skills their workforce needs and where they can best acquire them based (in part) on assessment of the quality of different schools and programs.

EXISTING CONDITIONS

If Louisiana's vocational education system were a private enterprise, it's budget of \$63 million and its payroll of over 1,500 people would rank it as one of the largest businesses in the state. Managing an enterprise of this scope requires delegation of authority and sound information.

Administrative Discretion

Most directors feel that they do not enjoy enough discretion. Their comments included: "Too many rules are unbendable."; "You need flexibility."; "Good judgment needs to be considered important."

### Management Information

Much time and energy is spent collecting data, but the process is inefficient. Several directors complained that they receive several requests from BESE for the same data because BESE cannot store and access data well. At the same time, BESE does not have data on labor market conditions and forecasts that would be useful to directors. The most important data gaps are in placement rates, intake assessment, competency testing, and costs.

Reported placement rates of vo-tech graduates reflect only those graduates about whom the local director and teachers have information. Interviewed directors stated that the placement rate as a percent of the total enrolled in the class may only be half the reported rate. "The numbers," stated one, "are misleading because we cannot follow up on more than a small fraction of our graduates." A report commissioned by the Department of Education last year concluded:

Insufficient efforts are made to learn the status of students exiting courses provided in the system. The primary impetus for the existing follow-up procedures is compliance with federal program regulations. Failure to obtain accurate follow-up information prevents an accurate evaluation of course effectiveness and needs for improvements.

State failure to undertake special sample studies of students exiting the vocational education system contributes to increased perceptions that program failures and weaknesses would rather be left unstated (An Assessment of Vocational Education Marketing in Louisiana, 1986).

The same report found that because job placement has received so little attention in the management of the system, most vo-tech schools provide very little placement assistance to their graduates, especially in comparison with private training schools.

Although most incoming students are tested, there is no standard statewide test that would allow directors to assess the relative status of their enrolling students, nor have State standards been established that would link intake tests to program admissions and the need for remedial education. This is in contrast to the nationwide trend toward increased assessment and remediation. Florida, Georgia, and New

Jersey, for example, have established standardized tests for all new students.

Despite the nationwide movement toward competency-based skills instruction, Louisiana has not established standard competency tests for vocational graduates. In 1986, a report prepared by the Department of Education recommended the establishment of skills competency tests, but no action has been taken.

The costs for offering different courses (including capital and operating expenses) are fundamental to the effective use of resources but are not reported.

A recent study conducted for BESE by Nicholls State University analyzed data processing capability in the vocational education system. The study found a wide range in the hardware used by schools and in the capacity to use computerized management information systems (Vocational-Technical Information Network, 1987). It also found strong support for greater centralized direction from BESE.

The data systems suggested in the following recommendations do not require either uniform hardware or program capacity for all schools, although implementation would encourage greater compatibility over time. Neither do they require schools to spend more time and effort on collecting data. But, they do require a greater commitment by BESE to acquiring the ability to collect and process data systematically.

Until reliable data are systematically available, all decisions--whether the Legislature voting on budgets, BESE deciding on new curricula, a director determining whether to retain a program, a student choosing a career, or an employer hiring a graduate--are based on intuition, guesswork, and, often, misinformation.

#### RECOMMENDATIONS

To use all the resources of Louisiana's vo-tech system more effectively, directors must be given much greater discretionary power over day-to-day management of their schools and much better data on which to base decisions. However, management information must be gathered in ways that do not add to the paperwork already borne by hard-pressed directors and agency staff.

The data described below should be published regularly by BESE so that directors, potential participants (including employers and the unemployed), guidance counsellors, and BESE members are all informed about conditions in Louisiana. Data can help decision making only if it is accessible in a comprehensible form to decision makers. In addition, good information serves as an advertisement for the system. According to many directors, vocational education in Louisiana suffers a poor reputation. The widespread dissemination of reliable data can help improve this image.

GSRI recommends that provision be made to pay for this data collection either through a \$2 registration fee paid by students, through the use of Job Training Partnership Act funds, or through dedicated 8G funds. Management information is basic to the administration of programs and should not be influenced by State fiscal conditions. Basic performance data must be collected and disseminated if well-founded management decisions are to be made.

Recommendation B.1: The Legislature Should Grant Vo-Tech Schools Greater Discretion in Decision Making Without Prior Approval From BESE or the Division of Administration.

Ultimately, schools should be judged on results, not on how well they adhere to bureaucratic processes. The management information systems described below will allow closer evaluation of results, but this must be accompanied by greater discretion over expenditures, hiring, marketing, placement assistance, customized training, and other aspects of running an effective school.

Recommendation B.2: Comprehensive Data on Placement Rates and Earnings of All Graduates of All Programs Should be Compiled and Published.

This program should be modeled after the one adopted by Arizona in 1985 in which postsecondary training institutions (public and private) send the Social Security numbers of their graduates to the state's Center for Vocational Education. The Department of Economic Security (the Department of Labor in Louisiana) then matches Social Security numbers against its unemployment insurance file (which covers 96 percent of the civilian labor force) to determine the job status and quarterly earnings of completers.

From these data, the department calculates, for each program (with more than 25 completers) in each institution, the average placement rate and average earnings. These data are published by program, so that Federal disclosure restrictions are not violated. The data are



reliable, and this method for collecting is not onerous to vo-tech directors. In Arizona, the total cost of compilation and publication is estimated at \$2 per student, half of which is absorbed by the agencies involved. Kansas, which has just introduced a similar system, estimates that the additional cost will be about \$1 per student.

Recommendation B.3: The Basic Skills of Those Enrolling in Vocational Programs Should Be Assessed Using the Same Tests in All Schools.

Eventually, BESE should establish admissions standards for skills programs and require students to achieve appropriate levels of basic skills as well as job skills.

Recommendation B.4: Those Graduating From All Approved Programs Should Be Tested For Job Skills and Basic Skills Competency.

The Department of Education has designed tests that measure the skills that should be acquired from the curriculum for all core skills courses. These should be adopted for all programs, and BESE should regularly analyze the relationship between test performance and the job-market success of graduates to determine whether the tests reflect the demands of employers. Responsibility for developing and evaluating tests should reside with the Curriculum Laboratory.

Recommendation B.5: BESE Should Require Standardized Procedures for Estimating Annual Capital and Operating Costs and Preparing Budgets For All Programs and For All Institutions.

BESE and school directors must weigh the benefits of policy and management decisions against costs. Program costs include not only operating expenses, but also imputed capital expenditures (depreciation of plant and equipment). Budgets should include assessment of the costs of meeting demands in different ways (leasing rather than building a facility, leasing rather than purchasing equipment, etc.). This would require a major commitment to design and implement new accounting methods. GSRI recommends that BESE secure the services (by competitive bid) of an experienced accounting firm to design a standardized accounting system to be used by all postsecondary vo-tech schools.

Section C  
STRENGTHENING ACCOUNTABILITY

Public and private enterprises function effectively only if decision makers are held accountable. Accountability refers to the rewards and sanctions that are triggered by the success or failure of actions. The most widely used accountability mechanism is the funding system. In private firms, the profits from a successful product or service encourage expansion. For a private training program, the revenues from increased enrollment allow increased demand to be met. In many vo-tech systems, as in most other public training programs, the link between the actions of program directors and fiscal outcomes is much less direct. This discourages innovation.

EXISTING CONDITIONS

The mechanism by which funds are distributed to Louisiana's postsecondary vo-tech schools automatically creates incentives (often unintended) because directors must do whatever is required to maintain or increase funding. Because annual budgets do not directly depend on either enrollment or success in training, and because the rules that determine budgets are not clearly established, directors invest time in lobbying to protect their programs and to expand their budgets. This reduces the level of effort devoted to the running of schools.

At present, both capital and operating budgets are determined by the Legislature, which lacks vital information about the range of problems and opportunities faced by the local directors. Because enrollment data are unreliable and there is little uniform data on the performance of schools and relative costs per graduate, Louisiana is unique among states in allocating funds with little relationship to demonstrated need, proven capabilities, and actual costs (see Appendix C.1).

Operating Costs

Overall budgets are determined for the eight regions by the Legislature and are then allocated among the component schools. The current system does not provide incentives to attract additional students, raise graduation rates, increase skills attainment rates, and

place students in well-paying jobs. There is little reason to investigate lower-cost ways of training students, and the marketing of customized training to private employers is discouraged.

A director who managed to attract more students than anticipated to a program would find his fiscal resources stretched thin until the next funding year. One director summarized the problem as follows: "In September and October, if you can't get out your crystal ball and read it correctly for the next fiscal year, you're out of luck for another year and a half."

Directors have virtually no capacity to augment their budgets with self-generated revenues. Proceeds from Coke machines, fees from customized training programs, and 50 percent of the small tuition recently imposed are all returned to the State General Fund. Directors enjoy little flexibility to expand programs as demand rises, and they may suffer severe budgetary consequences if they allow a program to be terminated.

#### Capital Costs

Capital items are line items in the State's budget. Directors must go through a time-consuming process of establishing need for a facility and lobbying for the budget item. One director observed: "The directors who play the political game well have been able to get a new building even if they can't fill it with students." As a result, 15 years of expanding budgets have given Louisiana a vocational training capacity far in excess of any other state (on a per capita basis) and, in many regions, much larger than demand appears to warrant.

Directors are in the best position to judge whether a new facility is needed and whether an existing one should be maintained. They are also in the best position to judge the value of additional equipment. Unfortunately, the present system does not encourage them to use or to share their judgment. Because the State pays the full costs, directors have little incentive to pursue low-cost alternatives to new construction, such as leasing space or modifying existing facilities.

At the same time, because they must wait in the political queue, directors may not be able to respond quickly to growing demands for

certain programs or to acquire the equipment needed to embrace new technologies in their curricula. Industry representatives and vo-tech directors strongly argue that much of the equipment in institutions is obsolete. The purchase of new equipment is often delayed because of the political difficulty of purchasing for only a few sites.

Two of the most important deficiencies of the present funding structure are the smallness of tuition fees and the lack of local fiscal contributions. In view of the shrunken oil and gas revenues at the State level, alternative revenue sources must be developed if vo-tech is to be funded at a level that allows it to realize its full potential. Increasing tuition and tapping local revenue sources would also improve accountability, although all directors oppose raising tuition if the revenues are offset by cuts in State support. Few directors feel that the recent institution of tuition has harmed enrollment, and there is substantial support for the point made by one director, who said: "Increasing tuition has its good points; it would require us to dig down and offer those students their money's worth." The concept of local funding is also supported by some directors, one of whom stated: "The key to local control is local funding. Our people would be more interested in what we're doing." California recently introduced tuition for all its community college programs with no reported ill effects and no reduction in enrollment.

#### RECOMMENDATIONS

The Legislature should distribute all operating funds to vo-tech schools through a funding formula developed by BESE. This is a common approach nationwide and is used in most states. To strengthen accountability over how funds are spent, local vo-tech boards should be appointed by BESE. These boards should become elected bodies if local areas choose to contribute local funds. In turn, directors should be given substantial control over what they can do with formula funds and should be able to retain self-generated revenues, including locally established tuition, revenues from customized training, business assistance programs, and special education programs. They should also be given broader powers to contract with other public agencies (such as school districts, Service Delivery Areas, and Social Service agencies)

for the delivery of training services. These funds could be used by the director for a broad array of activities defined by BESE, including new course development, marketing a program or the institution, or special placement programs.

Recommendation C.1: Budgets of Vo-Tech Schools Should Be Determined By A Formula Based Primarily on Student Contact Hours.

Each year, the Legislature should appropriate the State's support for vo-tech operating expenditures into a vo-tech fund that would be allocated among schools according to a formula established by BESE and that could be used by directors for a wide range of eligible activities. The formula should be based, primarily, on the number of actual student contact hours, but may include some allowance for fixed costs, some provision to prevent large year-to-year changes in budget levels, and some allowance for cost differences among programs (although GSRI suggests that the latter approach not be adopted). The data are not yet available to allow detailed computations of alternative formulas. For Fiscal Year 1987-88, GSRI recommends that BESE adopt a simple formula that makes some allowance for the level of student contact hours in schools. In FY 1988-89, BESE should design a formula based upon the following considerations:

1. Formula Base. The measure of student load should be the number of actual contact hours--the average attendance or membership during each scheduled contact hour in each course. BESE would establish the "hourly rate per contact hour." The rate would be established by dividing the total budget appropriated by the Legislature by the number of student contact hours generated within the system in the preceding year by all schools in the system. The contact hours would be calculated by the number of contact hours offered by each approved program (excluding customized training and other special offerings) multiplied by the average daily attendance in each program. Ultimately, budgets would be quarterly, with the hourly rate set each quarter and allocations based on the previous quarter's accumulated student hours.
2. Fixed Allocation. Small schools and those with low enrollment could be protected by fixed allocation to all institutions. This would reduce the hourly rate.
3. Grandfathering. During the transition from the present system to full-formula funding, a provision could be adopted that would prevent year-to-year changes in budgets in excess of 10 percent.
4. Bonuses. To discourage schools from boosting enrollment while tuition remains very low in order to take advantage of the formula, BESE should experiment with funding incentives such as bonuses related to student acquisition of competency,



improvements in skills while participating, and ultimate placement in good jobs.

5. Capital Costs. Ultimately, capital costs (funds for facilities and equipment) should be folded into the formula and schools given the same bonding power enjoyed by school districts.

Recommendation C.2: The Legislature Should Require BESE to Create Local Vo-Tech Boards.

These would have not more than 11 unpaid members, recommended by the director and appointed by BESE, and would: (1) recommend the hiring or firing of the school director; (2) approve the annual budget; and (3) approve the annual development plan. The appointed boards are a transition to locally elected boards that would be created following constitutional amendments and the commitment of local tax revenues in support of the schools. Community participation creates stronger, more direct accountability because the schools primarily serve local residents.

Recommendation C.3: The Legislature Should Establish a Commission to Propose Constitutional Amendments to Allow: (1) The Election of Local Vo-Tech Board Members; and (2) Local Communities to Provide Tax Support to Vo-Tech Schools (with a state equalization formula).

The recent precipitous decline in State revenues has underlined the wisdom of greater local fiscal involvement in education, but the arguments for local involvement in vocational education extend beyond fiscal necessity. Vo-tech schools could provide a far wider range of activities, such as adult education programs for the growing number of retired people, parenting classes, remedial education, customized training, and even job-placement assistance for those laid off by plant closings. The greater the level of community involvement, the more effectively these opportunities could be exploited. In Oklahoma, where local control is an important part of the system, 89 percent of requests for local tax increases have met with voter approval.

Recommendation C.4: The Legislature Should Enable Schools to Retain Self-Generated Revenues, Including the Proceeds From Discretionary Tuition Fees, Customized Training Programs Paid for by Employers, and Contracts With Other State and Local Agencies.

These funds could be used to market the school, hire additional faculty, provide job-placement assistance, develop new courses, purchase new equipment, lease space, and undertake a wide range of other BESE-defined activities. The Legislature should grant schools the option of charging additional tuition.

Recommendation C.5: BESE Should Assess and Expand Access to Student Aid So That Tuition Increases Do Not Deny Training Opportunities to Low-Income People.

BESE should initiate study of the present, complex system of student aid to determine whether it is meeting and will be able to meet the needs of vocational students, and it should monitor student aid requests and the family income of new students each year to determine whether increased aid is needed to ensure access to those from low-income homes. BESE may initiate programs to help schools better use Federal student aid programs or may establish State grant and loan programs for poor students.

## CONCLUSION

In August 1986, the Nation's 50 governors adopted an education strategy (A Time for Results) for improving primary and secondary education. States, they argued, must establish a new social compact in cooperation with educators, parents, and community members that would feature:

- . Clear, measurable goals for students and schools established by the state
- . Reduced state requirements that limit the ways in which students may be educated
- . Encouragement and assistance from the state for school districts that wish to create specialized programs
- . Rewards for schools and districts where students are making progress toward state-established goals.

The strategy for improving Louisiana's vo-tech system that is outlined in the present report is based on the same principles as A Time for Results.

GSRI's recommendations reflect the strongly held views of many decision makers within the system and the direction pursued by competitive states. The recommendations, in brief, are as follows:

---

### A. IMPROVING OVERALL SYSTEM MANAGEMENT

- A.1: BESE should strengthen its capacity to analyze policy.
- A.2: BESE should expand its capacity to evaluate programs and institutions.
- A.3: BESE should expand its capacity to audit institutions.
- A.4: BESE should delegate operating decisions to vo-tech schools.
- A.5: BESE should negotiate with other state agencies to improve cooperation.

### B. BETTER MANAGEMENT OF PROGRAMS

- B.1: The Legislature should grant vo-tech schools greater discretion over operating decisions.
- B.2: BESE should compile standardized data on the placement rate and earnings of graduates.

- B.3: BESE should adopt standardized tests to determine the initial proficiency of incoming students for use by vo-tech schools.
- B.4: BESE should begin to develop or adopt competency-based curricula and tests for vo-tech graduates.
- B.5: BESE should establish standardized operating and capital cost accounting procedures for vo-tech schools.

C. STRENGTHENING ACCOUNTABILITY

- C.1: The Legislature should allocate insitutional funds through a formula based on student contact hours.
  - C.2: The Legislature and BESE should establish local boards to oversee the management of vo-tech schools.
  - C.3: The Legislature should establish a commission to propose means for: (1) providing for the eventual election of these local boards; and (2) local tax support for vo-tech schools.
  - C.4: The Legislature should grant vo-tech schools discretion over locally generated revenues (including optional tuition).
  - C.5: BESE should assess and expand access to student aid.
- 

These changes would improve the training system in Louisiana by enabling policy makers and administrators to make better decisions. The responsibilities of everyone within the system would be changed dramatically. BESE would exert much greater control over the system by setting overall objectives, carefully monitoring the performance of each school (based on factors such as graduation and placement rates), and auditing program expenditures. BESE would be able to undertake these tasks because it would have much better data to measure what was happening to students and because it would be freed of the burden of administering programs and institutions.

Directors would enjoy much greater discretion over budgets and program management and would be freed from the politics of budgeting by receiving funds based on student contact hours. They would demonstrate accountability in terms of how well their students perform in acquiring skills and jobs, they would have greater freedom to market their programs to private employers, and they would be encouraged to run schools on a more businesslike basis.

Part II  
EXISTING SYSTEM



## Part II

### EXISTING SYSTEM

This part of the report provides an overview of Louisiana's publicly supported system for postsecondary vocational education. Among the factors considered are the structure and organization of the system and general methods of operation. The roles of the various entities involved--the Board of Elementary and Secondary Education (BESE), the Office of Vocational Education in the State Department of Education (SDE), the Legislature, school directors, and others--are outlined. Policy making, management, planning, budgeting and finance, service delivery, support groups, coordination and articulation with other agencies, and service providers are addressed.

The purpose of this description is to present a broad perspective on the existing system. Information for this portion of the study was obtained from secondary sources as well as from interviews with persons representing various organizational components of the system.

#### STRUCTURE AND ORGANIZATION

Despite the large commitment the State has made to vocational education (and in particular to the postsecondary area), no formal description of the policies, procedures, responsibilities and lines of authority within the system has been prepared by either BESE or SDE. The Public Affairs Research Council of Louisiana (PAR) published studies in 1978 and 1981 containing partial descriptions (as well as recommendations to alleviate perceived problems). Additionally, the Center for Legal Studies on Intergovernmental Relations at Tulane University published a monograph in 1985 that focused on the problem of fragmented authority for educational policy making in Louisiana.

The Tulane report discussed the conflicting roles and responsibilities of the several actors charged with initiating and implementing education policy at the State level (specifically, BESE, the Superintendent of Education, the Legislature, and the Governor). Although this report was concerned with elementary and secondary education, the same concerns apply to the postsecondary vo-tech schools. It may be that the problem of competition among government

entities is more apparent for the vo-tech system, which does not have local parish school boards and local superintendents to temper the effect of state-level controversies on day-to-day operations.

A recent (1986) research publication of the Office of Vocational Education of SDE (An Assessment of Vocational Education Marketing in Louisiana) contains the only description of the system published by BESE or SDE. It presents an overview of vocational education within the State, including public and private providers and secondary, postsecondary, college, and university level programs. Figure 1, taken from that study, presents a graphic representation of the basic structure of the overall system of which public postsecondary vo-tech is a part.

#### POLICY

Both formal and informal processes influence the formulation of statewide policies for vocational-technical schools in Louisiana. Three governmental entities in the field of education can enact policies having the force and effect of law: the State Legislature, BESE, and the Governor. The Legislature establishes statutory policies, BESE establishes administrative policies under the Administrative Procedures Act and the Governor issues Executive Orders.

In actual practice, policy originates from a number of sources. As the Tulane study states:

Informally, policy-making by all three governmental entities is affected by societal influences, including individuals and groups with access to the Governor, the Legislature, and BESE. Since all three of these bodies are elected (or primarily elected), the policy-making process becomes a melange of actors and responders, and the true source of policy is usually too diffused to be identified. Occasionally, a single person can affect policy through the political process, but the interplay of forces varies from issue to issue.

Several other entities can have a substantial effect on policy. Among these are the Department of Education, the vo-tech school directors,

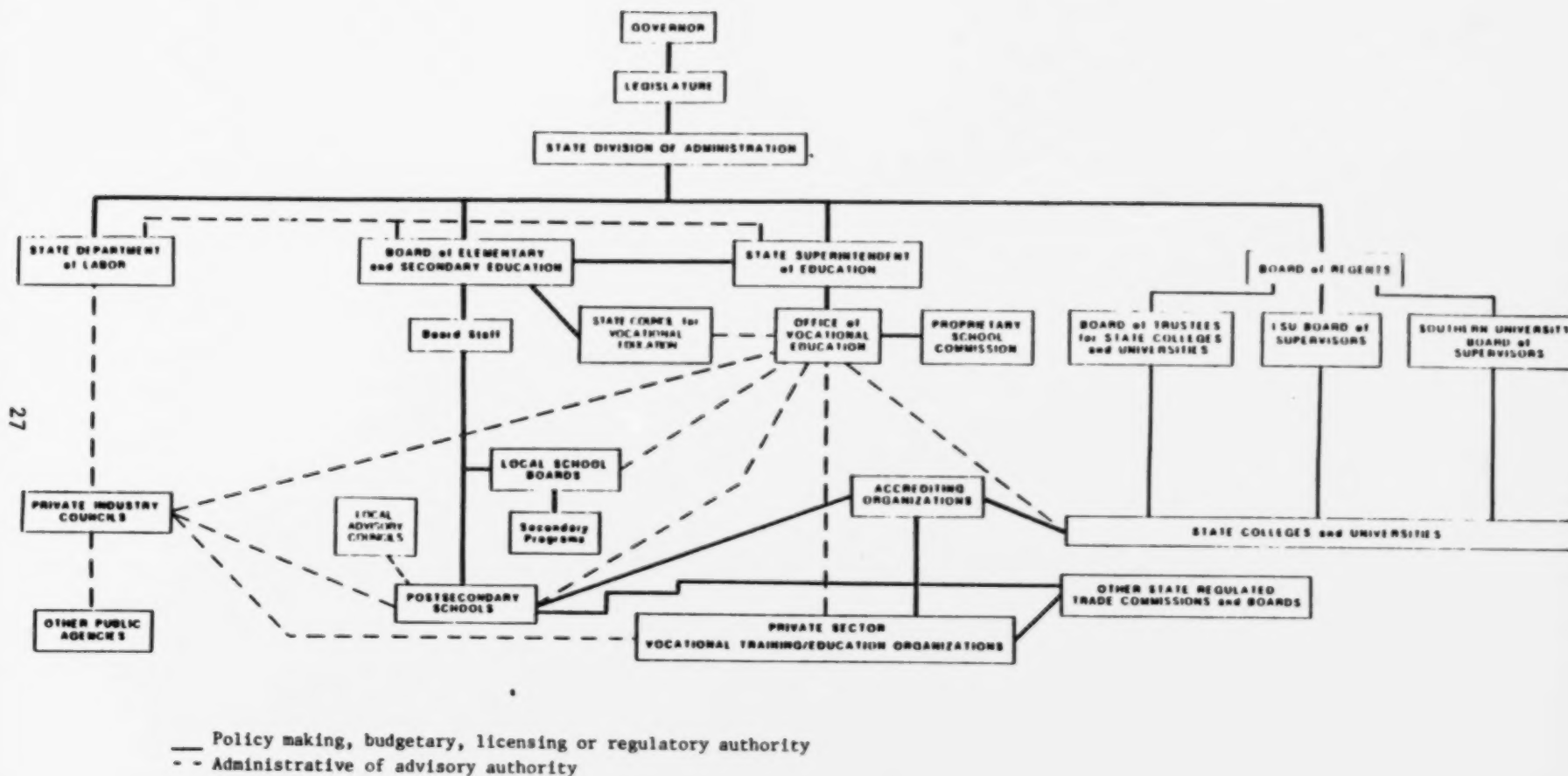


Figure 1. Structure of Louisiana's Vocational Education System

and the Division of Administration. The Department of Labor also influences policy.

The State Superintendent of Education (the elected head of SDE, as authorized by the State Constitution) is charged with the administration of the policy established by BESE. The administrative functions of SDE for postsecondary vo-tech are housed in the Office of Vocational Education and are carried out primarily by the Trade and Industrial Education Bureau (T&I). In practice, owing to its larger staff and substantial control over budgeting information, SDE is sometimes able to influence policy, rather than acting simply as an implementor.

In recent years, a pattern has developed in which BESE has shifted toward policy adoption. Although BESE initiates policies, SDE also initiates policies concerning administration and curriculum for consideration by BESE. In addition, policy initiatives from other sources are generally sent to SDE for review and recommendation before being acted on by BESE.

The State Division of Administration (DOA), through its annual budgetary review and development authority, exerts significant influence on the scope and composition of the vocational education programs offered in Louisiana. By its recommendations for program funding and staffing levels, it plays a major role in determining what vocational education activities will be undertaken or emphasized.<sup>2</sup>

The Louisiana Department of Labor can elicit policy changes or responses because of its responsibility in the areas of apprenticeship programs and the Federal Job Training Partnership Act (JTPA). Federal law requires interagency cooperation and coordination in the use of Federal funds. Most JTPA funding goes to the local Service Delivery Areas (SDAs) to support training of the economically disadvantaged. The 17 SDAs in the State currently share in excess of \$40 million, which is distributed by formula. A substantial portion (eight percent or approximately \$4 million) goes to BESE, which subcontracts with SDE to administer programs in the public vo-tech system. Vo-tech currently receives about \$2 million per year of the "eight percent" funds. Vo-tech is also the principal trainer of displaced workers under Title III of JTPA and receives about \$2 million per year for that service.

Local vo-tech schools also contract with individual SDAs to provide training covered under Title II of JTPA.

Vo-tech school directors influence policy through their informal contacts with BESE members and through the formal advisory relationship established through the Vocational Directors' Council. BESE consults the Council in normal circumstances when matters affecting the administration of vocational-technical schools are under consideration.<sup>3</sup>

The Legislature plays a very active role in policy making by mandating certain actions and procedures. These statutory changes must then be implemented by BESE and administered by SDE.

As this brief review indicates, the impetus for new policy or changes in existing policy can originate from many sources both within and without the postsecondary vocational education system. Whatever the origin of a particular policy, BESE must ultimately adopt policies, and SDE must implement and administer them.

#### MANAGEMENT AND ADMINISTRATION

Reports on the postsecondary system have cited the "lack of a direct line of responsibility from the policy board (BESE) through the superintendent (of SDE) to his professional staff in the Trades and Industry Bureau (T&I) and then to the regional and school directors. The problem of poor coordination and cooperation resulting from this structure continues."<sup>4</sup>

Under the present arrangement, SDE (chiefly T&I) has the general responsibility of implementing and administering policies adopted by BESE and planning for the development of the system. T&I performs a number of tasks, including technical assistance, instructor certification, preservice and in-service training, curricula development, program evaluation, and review and recommendations on general operational and capital outlay budgets (including budget amendments or other changes). In addition, T&I must review, approve, and make recommendations to BESE on all employment or dismissals of personnel in the postsecondary vo-tech schools.

BESE, for its part, adopts policies governing the operation of the postsecondary vo-tech system. It also adopts policies and guidelines



governing curricula for vo-tech programs and for evaluating those programs. BESE retains the right of final approval of operational and capital outlay budgets and of changes and amendments to those budgets. BESE is also the employing authority for the system and retains the right of final approval in all matters relating to personnel.

With the advent of an appointed superintendent of education, a reformulation of the administrative structure becomes possible. Specifically, BESE will have a say in the selection of the vo-tech staff within the Office of Vocational Education and will be able to hold them accountable for implementing policy made by BESE. Also, SDE personnel may be able to require compliance from directors of local vo-tech schools rather than relying on voluntary cooperation for compliance.

Even with the change to an appointed superintendent, many of the day-to-day operating decisions and procedures would basically remain unchanged, and, for the most part, the same people would be making decisions. Full advantage should be taken of the opportunity for positive change presented by the advent of an appointed superintendent. However, old habits are hard to break and old alliances difficult to give up. There will be a tendency to do "business as usual" and go outside newly established lines of authority and responsibilities.

In order to secure those advantages, a clear statement of the goals, policies, and procedures characterizing the changed system will be needed. The lack of such an overall management plan is a notable deficiency in the present system.

#### MANAGEMENT PLAN

The postsecondary vo-tech system does not have a full-fledged management plan. No single document can be given to a new vo-tech director that would explain the roles, rights, duties, and responsibilities of the various agencies and categories of personnel making up the system or that would indicate proper procedures for doing business.

BESE's Policy and Procedure Manual states (Section 4.03.10) that: "The Board adopted the Policy and Procedure Manual as prepared by the State Advisory Council for Vocational Technical Education with proposed

amendments." This action was taken on September 22, 1977 and announced in the Louisiana Register in October 1977. Throughout the BESE Policy and Procedure Manual, reference is made to a Policy and Procedure Manual for Vocational Education. However, no such document exists. Its parts have apparently been adopted piecemeal into the more general BESE document, which concerns elementary and secondary education, special schools, and postsecondary vo-tech. If anyone wants to ascertain how the vo-tech system is supposed to function, they must work their way through a typewritten volume almost three inches thick.

A document that might be made to serve as a management tool for postsecondary vocational education is "Louisiana's Program Plan for the Administration of Vocational Education." This document is a "compliance document" designed at present to satisfy the "letter of the law" governing the planned usage of Federal funds. These funds, provided through various national vocational education and job training programs, are targeted to the disadvantaged, minorities, the handicapped, and non-English speaking persons. The "Program Plan" is organized mainly in terms of these categories. It also does little to distinguish between secondary vocational education students and postsecondary vo-tech students, which makes it extremely difficult to isolate the proposals as they apply to either area.

The program plan is reviewed by a number of interested agencies and through public meetings. Both BESE and SDE must attest that it is the basis for State operation and administration of the program. However, if the goals, policies, and procedures espoused in the "Program Plan" were clearly stated and if the plan were expanded to include all students and all funding sources, it would go a long way toward providing an orientation to guide decision making within the system.

Another compliance document reports how Federal funds were spent. Formerly entitled Accountability Report for the Administration of Vocational Education, it has now been supplanted by a document with a changed format called the Performance Report. Extensive information is gathered to serve Federal program interests and provide justification for Federal program funding.

Past studies<sup>5</sup> have stressed that appropriate information is needed for managing the vo-tech system (such as making comparisons of the cost of various programs between schools and regions). The Legislature passed a law in 1985 requiring an annual report "detailing information pertaining to each of the postsecondary vocational-technical schools. The report shall be sufficient to provide information to be used for annual planning and policy planning throughout the year" (R.S. 17:2005). The data required for this report include enrollment, cost per student contact hour per course, placement, average attendance, and other basic measurements needed to gauge the efficiency of the system. Considerable information useful for management of the system is also generated through the annual budget-making process.

All of the data gathered for these various reports could be acquired at one time. It could then be coordinated and analyzed and tied to information contained in individual student records in such a way that information necessary for informed management is available (while still protecting the privacy rights of individuals).

#### PLANNING

Planning for future occupational supply and demand is an uncertain business. The data used in most states for vo-tech planning is inadequate, and Louisiana is no exception. However, efforts to provide a database are made through the Department of Labor's State Occupational Information Coordinating Committee. The Committee has prepared an Occupational Information System (OIS), which indicates employment supply and demand by parish and statewide. Demand is measured by an annual employer-based industry survey. Supply data are projected using data from public and private training institutions.

School directors and SDE personnel use this information as a planning tool. Additional information is gathered from local and state advisory boards, PIC councils, and others about what jobs may be available in the future. Additionally, if there is knowledge of a business or industry moving into or out of an area, local vo-tech schools can adjust their course offerings accordingly.

## BUDGETING AND FINANCE

Total annual expenditures for the State's postsecondary vo-tech system for the years 1981-82 to 1986-87 are presented in Table 1. As indicated in Table 1, the level of State investment in the provision of postsecondary vo-tech education services is substantial. It should be noted that over the last three years, the State General Fund direct investment has decreased 23 percent, from \$57,545,116 for FY 1984-85 to \$44,540,573 for FY 1986-87. This funding decrease is a result of two circumstances. First and foremost, a series of major State revenue shortfalls has prompted a series of sizeable budget cuts over the last two years throughout State government. Second, by choosing to impose significant reductions in vo-tech education funding, the Legislature has expressed an opinion that these services could and should be cut.

Additionally, as shown in Table 1, in spite of the above-mentioned State General Fund reductions, the overall funding level for postsecondary vo-tech remained relatively constant for this three-year period as a result of substantial percentage increases in funding from virtually all other sources. It should be noted that most of these additional dollars are for specific programs and must be spent according to fairly strict Federal and/or State programmatic guidelines.

### State Budget Procedures

Technical budget development activities follow customary procedures established by the Budget Office of the State's Division of Administration. The Division of Administration is part of the Governor's Office and, under the Governor's leadership, prepares the annual State budget for submission to the Legislature. The Legislature in turn modifies and/or approves this budget and then sends the budget back to the Governor for action.

As a general rule, each State department develops its overall budget, which is submitted to the Budget Office for negotiation and approval. The overall departmental budget includes separate budgets for each office or division. Overall budgets are divided into two basic components--standstill budgets and decision packages. Standstill

Table 1. Post-Secondary Vocational-Technical Education in Louisiana  
Expenditure Summary, Fiscal Years 1981-1982 through 1986-1987

| Category                        | Fiscal Year |            |            |            |            |            |
|---------------------------------|-------------|------------|------------|------------|------------|------------|
|                                 | 1981-82     | 1982-83    | 1983-84    | 1984-85    | 1985-86    | 1986-87*   |
| State General Fund (Direct)     | 49,735,126  | 53,632,659 | 53,546,642 | 57,545,116 | 55,956,406 | 44,540,573 |
| State General Fund By:          |             |            |            |            |            |            |
| Interagency Transfers           | 4,885,679   | 4,624,335  | 4,926,409  | 5,604,505  | 6,629,002  | 11,242,422 |
| Fees and Self-Generated Revenue | 214,607     | 297,532    | 381,280    | 443,751    | 1,011,122  | 4,565,813  |
| Statutory Dedications           | -0-         | -0-        | 172,452    | 223,296    | 186,220    | 2,787,955  |
| Interim Emergency Board         | 59,661      | -0-        | 51,667     | 44,828     | 57,917     | 150,270    |
| Federal Funds                   | 11,815      | 8,613      | 11,410     | 10,751     | 11,467     | 20,199     |
| TOTAL MEANS OF FINANCING        | 54,906,888  | 58,563,139 | 59,089,860 | 63,872,247 | 63,852,134 | 63,307,232 |
| Capital Outlay                  | 5,206,125   | 2,865,148  | 1,323,400  | 2,180,000  | 2,264,757  | 1,465,668  |

\*Estimated

NOTE: State General Fund (Direct) = Direct appropriation

State General Fund By:

Interagency Transfers = Vocational Education Carl D. Perkins Act of 1984, Public Law 98-524, Interagency Transfer from the Bureau of Vocational Education to eligible Vo-Tech school recipients, Grants for Disadvantaged, Handicapped, Adult Training and Retraining, Single Parents or Homemakers. Sex Bias and Stereotyping, Criminal Offenders, Title II-B and Research Projects.

Fees and Self-Generated Revenues = Culinary Occupations Fees, In-State Tuition, Out-of-State Tuition, and Miscellaneous Sales.

Statutory Dedication = Funds dedicated through State statute.

Interim Emergency Board = Funds obtained through Interim Emergency Board action.

Federal Funds = Fees received from the Veterans Administration for enrollment of veterans in the Region schools and Pell Grant administrative fees.

Source: Executive Budgets, State of Louisiana, Volume II, 1982-1983, 1983-1984, 1984-1985, 1985-1986, 1986-1987, 1987-1988; and Louisiana State Division of Administration.



budgets are foundation budgets that do not include program expansions and new programs. They are basically the previous year's budget adjusted for unavoidable cost increases. As a consequence of recurring State revenue shortfalls, during recent years departments have also been instructed to submit alternative budgets based on less than 100 percent funding of standstill budgets; that is, departmental budgets are now often submitted on the basis of a series of funding increments such as 70, 80, and 90 percent of standstill budgets.

Decision packages are comprised of priority items not included in standstill budgets that the department wishes to be funded. Additional funding requests are each assigned a priority by department management, which indicates each item's importance from an agency-wide perspective. Funding requests are then compiled and listed in descending order according to priority. Each item is also accompanied by a written justification and a cost figure. Decision packages can include funding requests for new or expanded programs and requests for restoration of funding for existing operations. The latter circumstance generally occurs when standstill budgets are funded at less than 100 percent, resulting in the elimination or reduction of funding for some existing operations.

Any funding for decision package items is negotiated with the Budget Office as part of the Office's budget approval process prior to submission to the Governor (and ultimately to the Legislature).

Additionally, for the purposes of this description, there are two other points worth noting:

1. Once the budget has been passed by the Legislature and signed by the Governor, there are two basic ways of obtaining additional State General Fund monies for an existing budget category. One is to move money from another budget category within the department. This action requires the approval of the Joint Legislative Budget Committee. The other is to request funds from the State Interim Emergency Board, which can approve funding requests subject to approval (usually obtained through mail ballots) of the Legislature.
2. At the end of the fiscal year, surplus State funds (excluding contractual obligations) from all budget categories are returned to the State General Fund. The presence of unexpended funds in any budget category at

the end of the fiscal year typically increases the probability of a budget reduction for that category for the next fiscal year.

#### Budget Procedures for Vo-Tech Institutions

Vo-tech Institution budgets are submitted to BESE for review, approval, and submission to the executive and legislative branches. In addition, the Trade and Industrial Education unit of the Department of Education's Office of Vocational Education also has budget review responsibilities. Historically, the vo-tech institutions have functioned within the budget process as separate State agencies. Their budgets were not agglomerated into a system, board, or department budget, but were separately submitted, modified, and/or approved through the above-described State budget process.

This procedure was modified in recent years to the extent that vo-tech school budgets are now developed on a regional basis and submitted to the budget approval process. The eight vo-tech regional directors are responsible for developing an overall budget and decision package based on the individual budgets of the vo-tech schools in their region. Once the final budget is approved, any change in funding source budgets--i.e., additional funds from JTPA contracts, unanticipated grant funds, etc.--must be approved by the Joint Legislative Budget Committee. Although budgets are prepared and approved on a regional basis, each school has its own drawing account.

The transformation from institutional budgeting to regional budgeting has introduced some additional flexibility into the system. If a region stays within its line-item budget, it can move funds among schools as needed within individual line-item categories. School directors can, in effect, "borrow" money from each other as long as the regional budget for that line-item category does not change. However, the approval of the Joint Legislative Budget Committee is required when intra-region fund movements within a single budget category total more than \$50,000.

An important feature of the budget preparation and approval procedure is that historically each school has had to basically fend for itself during the budget process. This means that each school's

budget has always faced the possibility of being separately increased or decreased by the executive or legislative branches. These circumstances create a strong incentive for an individual school director to pursue his school's interests by protecting the institution's budget and programs through the cultivation of strong political ties.

#### SERVICE DELIVERY

Vocational-technical educational services are delivered to students through a system of 53 schools and branches and the Curriculum Development and Research Center. Also, training programs are operated at nine correctional institutes. Programs providing training in over 50 different areas are offered. The system as a whole has an operating budget for 1986-87 of \$63 million.

Published enrollment figures for the vo-tech system can be misleading. Prior to the 1985-86 annual report, the usual enrollment figure quoted for postsecondary vo-tech was cumulative enrollment for day and evening students combined. Cumulative enrollment is the total number of students enrolled in a given year. It counts equally those who enroll and stay for two weeks as well as those who are enrolled and stay all year. The annual average cumulative enrollment in the postsecondary system for the years 1980 through 1984 was 73,607 students.

The annual report required by the Legislature since 1985 is to show not only cumulative enrollment, but also dropouts, leavers, completers, total student contact hours, cost per contact hour by program, and a number of other statistics basic to an understanding of the operation of the public postsecondary vo-tech schools. The first of the mandated annual reports was undertaken by SDE immediately after the legislation became effective. For this reason, it covers only the period from July 1, 1985 to January 30, 1986, a seven-month period. The report shows that of the 50,443 students who enrolled during this time period, one-third dropped out and 12 percent were "leavers" (that is, they had reached an exit point in the curriculum and had acquired a marketable skill). Thirteen percent completed their entire curriculum and received a diploma. Two percent were high school students taking some day classes at a vo-tech school. Net enrollment (the number of

students remaining in school January 30, 1986) was 19,929--almost 40 percent of the cumulative enrollment. The net enrollment as of January 30 is a good estimate of the average daily enrollment in the system.

Of the approximately 1,500 people employed in the schools statewide, about six percent are directors or assistant directors. Twenty-four percent are secretaries, accountants, maintenance, or other support personnel. Approximately 70 percent are instructional personnel or counselors.

In accordance with BESE policies, individual postsecondary vo-tech school directors submit recommendations for the employment and dismissal of personnel under their jurisdiction to SDE for review, approval, and subsequent recommendations to BESE. SDE advertises and receives applications for director positions. Applicants are interviewed or screened by a joint committee of BESE and SDE utilizing prepublished criteria adopted by BESE. SDE makes recommendations for dismissal of directors for consideration and approval by BESE. BESE is the employing authority for the postsecondary vo-tech system and has final approval in all matters related to personnel.

New courses in a vocational-technical school may be initiated by either the Office of Vocational Education or by the individual school. If initiated by SDE, the course is recommended to BESE for approval. Any postsecondary vocational-technical school desiring to add a new course must submit details about the course to T&I, which certifies to BESE when criteria are satisfied. BESE must then approve the new course. If the course is one for which an approved curriculum does not exist, the proposed curriculum is evaluated by the Vocational Curriculum Development and Research Center, whose analysis must accompany the request to T&I for the new course.

In 1974, the Legislature separated the Vocational Curriculum Development and Research Center from the Natchitoches Trade School and made it an independent entity with its own director. The Center, like the vo-tech schools, is under the control of BESE. The primary mission of the Center is to develop, print, and disseminate vocational curriculum materials to all vocational-technical schools in Louisiana.



The Center's duties also include housing a film library and reproducing printed items for vo-tech schools and other State agencies in the field of vocational education.

The Center currently has a staff of 23 employees consisting of a director, six professional curriculum development specialists, and 16 civil service employees. It is divided into three major departments that carry out the agency's missions: curriculum development, printing and composition, and production and dissemination.

The Center also works with T&I to develop curricula for the system. In addition to its own staff, qualified instructors in the system are used to write curriculum materials in their area of expertise. The Center's curriculum specialists also serve as resource persons to instructors and administrators on curriculum matters. Louisiana's vo-tech instructional materials are competency based and are organized into units of instruction. The materials are designed to be used as individualized instructional material or for group structured teaching.

The State Office of Vocational Education also contracts the development of curriculum guides each year in selected vocational areas. Many of these guides, as well as those developed by the Center, are listed in the Center catalog and are available from the Center. Louisiana, along with 10 other states, forms the Mid-American Vocational Curriculum Consortium. Through mutual effort, competency-based curriculum materials that a single state could not afford to produce are developed and disseminated at minimum cost to both instructors and students. Materials developed by this consortium are also available through the Center's catalog. Additionally, the Center is a member of two national vocational education information networks. By sharing information with other curriculum developers, duplication of effort is reduced.

The Center operates an audio-visual aids library, with numerous materials available on a two-week loan basis. The Center also locates and disseminates curricula from sources other than its catalog when requested. Center staff conduct manual and computer searches for up-to-date curriculum materials developed by all 50 states. Center



personnel also participate in annual in-service workshops for vocational-technical personnel. Besides instructional materials, the Center prints specialty items such as school catalogs, student information record forms, and school operating forms.

#### ADVISORY BOARDS

Vocational-technical education makes extensive use of advisory boards to provide advice to BESE and to the local and regional schools. BESE appoints a 13-member State Council for Vocational Education to advise on such things as the development of the State plan, policies to strengthen vocational education, private sector initiatives to aid vocational education, establishing evaluation criteria, and assessment and evaluation of how money (particularly Federal funds) is being spent. The State Council is required in order to participate in Federal vocational education programs and receive Federal monies.

The Legislature gives BESE the power to appoint an advisory council on career education for each school (R.S. 17:1998). Council members are recommended by regional and school directors, serve without pay, and must reflect a cross-section of "employee, employer, educational and public interest, and ethnic minorities."

BESE has established criteria governing the appointment and makeup of local and regional boards. As the Policy and Procedure Manual states:

It is the policy of the Louisiana State Board of Vocational Education that a separate advisory body be established for each postsecondary vocational-technical education program, and each vocational-technical region. The advisory body shall have no administrative or legislative authority and cannot infringe on powers or prerogatives of the appointing board or school administration.

The purpose of such boards is:

To provide an association between the school and community through which activities may be coordinated and to counsel with, assist, and advise schools and school authorities with respect to maintaining and improving vocational-technical programs.

Regional Advisory Councils have a maximum of 15 members, appointed by BESE, who are equally representative of employee, employer,

educational and public interests, and ethnic minorities. Each school in the region should be represented on the regional council. The regional center director serves as the executive secretary of the council. The purpose of the regional council is to advise the regional center on: regional program offerings as related to regional needs, facilities and equipment requirements, educational and employment trends, community relations, and management and labor relations.

Each school has its own advisory committee of not less than five members, with the school director serving as executive secretary. Members are recommended by the director and appointed by BESE. School committees have the specific purpose of advising the school director on: the types of programs needed to prepare students for entrance into specific occupations, physical facilities and type of equipment necessary for programs, job opportunities, student recruiting for training and placement, educational and employment trends in business and industry, management and labor relations, program quality, and community relations.

Also, each school has craft committees for the various program areas. The school director is the appointing authority for local craft committees. The role of the craft committee is to advise school authorities on: relevancy of training, job opportunities, working conditions and wage rates to be expected, curriculum design and content, and any other matters affecting those students being exposed to that particular craft.

All members of these boards serve without pay (except for travel expenses). Some advisory boards are quite active and provide helpful advice to the local and regional systems, whereas others have little or no impact on their respective areas.

#### ARTICULATION

The organization of personnel and resources that deliver post-secondary vocational-technical training to Louisiana citizens is not a self-sufficient or closed system. It must be seen as part of a larger complex of societal efforts to provide citizens with basic academic and job skills necessary to successful functioning in the world. Many programs have this goal. Some are oriented to particular segments of

the population, such as the disadvantaged, mentally or physically handicapped, displaced workers, and homemakers. In order for the public postsecondary vocation-technical education system to provide services to these and other persons effectively, the programs must be coordinated. Coordination of programs is required by Federal law if Federal monies are involved.

The following excerpt from the State's Program Plan for the Administration of Vocational Education: FY 1986-1988 shows some of the ways in which various programs, including postsecondary vo-tech, are coordinated in response to Federal requirements.

In an effort to provide for joint planning and coordination of vocational programs described in this State Plan with programs conducted under the Job Training Partnership Act, Adult Education Act, Title I of the Elementary and Secondary Education Act of 1965 as modified by Chapter I of the Education Consolidation and Improvement Act, the education of the Handicapped Act, the Rehabilitation Act of 1973, and with apprenticeship training programs, the Office of Vocational Education organized a committee whose composition is as follows: The Director of Federal Programs with the Department of Labor, the State Director of Adult Education, the State Director of Chapter I, the State Director of Special Education, the State Director of Vocational Rehabilitation, and the State Director of the Joint State Apprenticeship Training Council. This committee will review the State Plan, and through a joint effort, assure there exists within this plan a continuity of services that will enhance and support the programs carried out in the previously described program areas. Regular meetings will be held to assure the continued coordination and planning for all programs involved. The initial meeting took place on Friday, February 1, 1985, and Louisiana's Program Plan Draft and the Carl Perkins Act and accompanying Regulations were discussed. Other meetings will be held throughout the fiscal year.

Joint planning and coordination of programs has been addressed in several areas. Initially a meeting involving all program areas was conducted to determine a procedure for continued coordination and planning. This procedure which includes periodic meetings and plan and program review assures joint resources and a continuity of planned efforts toward coordination.

In order to receive federal funds, eligible recipients are required to provide assurances which indicate:

A description of the coordination with relevant programs conducted under the Job Training Partnership Act and the Adult Education Act, to avoid duplication.

A copy of the local application shall be available for review and comment by interested parties, including the appropriate administrative entity under the Job Training Partnership Act.

All areas of the state are covered by a JTPA service delivery area. Local coordination within service delivery areas is also facilitated by representation of vocational education representatives on a number of Private Industry Councils (PICs). PICs are required of all JTPA service deliverers.

State level coordination of vocational and JTPA training efforts is ensured by the use of common manpower planning data, provided through the State Occupational Information Coordinating Committee, and provided to both JTPA and vocational education planners. State level coordination is also ensured by overlapping membership on planning committees or councils. The State Job Training Council membership includes a member of the State Board of Vocational Education, and the Council has reviewed and commented on the state plan.

Another major coordination effort between vocational education and JTPA involves direct liaison between state and local vocational education and JTPA program operators. Direct interaction and communication between these groups is fostered by a state level vocational education staff unit assigned the responsibility of planning and administering the Governor's State Education Coordination Grant (8%) Funds. These funds may be used to provide education, training (including vocational education) and related services to participants under Title II of the Job Training Partnership Act.

Programs for Dislocated Workers. The Job Training and Partnership Act, Title III programs now use the Post-secondary Vocational-Technical System of Louisiana as the primary provider of services under this Act. These services are a part of the regular on-going programs, and it is necessary for the Office of Vocational Education to review the JTPA plan submitted as part of this Act to ascertain that those services provided under Title III, Part C, are in direct support of Title III under the Job Training and Partnership Act. Constant communication as well as formal meetings will be held with the State Director of the Job Training and Partnership Act, Title III Section to assure the continued

coordination of these programs. Local applications require the locals to inform the State of all programs being funded with JTPA monies. This is to avoid duplication of services.

Coordination between the State Department of Vocational and Technical Education and the Adult Education and the Special Education Divisions within the State Department of Education will be accomplished by reviewing each agency's respective plans in order to coordinate activities, projects, and services.

The Office of Vocational Education has worked closely with the Office of Vocational Rehabilitation in planning, especially in the areas of vocational education programs for the handicapped.

Coordination between these programs also takes place on the local level. Individual vo-tech schools arrange with local offices of the various agencies to provide training to the population segments that the agencies represent. Local vo-tech schools arranging with special education personnel or vocational rehabilitation case workers to train the mentally or physically handicapped are examples.

Articulation of postsecondary programs with the secondary schools is facilitated in a number of ways. Support and oversight activities for both programs are housed in the Office of Vocational Education of the State Department of Education. Curriculum specialists and Trades and Industrial Education provide technical assistance, evaluation and in-service training for both secondary and postsecondary programs. High school students can also take courses in their local vo-tech school and receive high school credit. Approximately 1,000 high school students per year are involved in such programs.

However, there is room for improvement. A recent report found that:

Secondary and postsecondary articulation is not adequate in the overall system. Students completing secondary programs in vocational education too frequently discover no opportunity exists for furthering the skills they have acquired in high school courses. Postsecondary schools may not offer more advanced courses, or in the event they do, may require the repetition of inordinate amounts of material previously learned.<sup>6</sup>



Vo-tech schools contribute to the industrial inducement efforts of the State Department of Commerce by providing specialized training for company workers as an inducement to industry to locate facilities in Louisiana. Schools also cooperate with local business and industry. However, the opinion is widespread among schools and agencies that the vo-tech schools could offer much greater assistance to existing and relocating businesses and industries.

NOTES

<sup>1</sup>Miron, Louis F., Wayne A. Clark, and Susan L. Krinsky. Education Policy in Louisiana: Strategies for Reform. Center for Legal Studies on Intergovernmental Relations, Tulane University, New Orleans, Louisiana, 1985.

<sup>2</sup>Dykes, Thomas and Lawrence S. McKenzie III. An Assessment of Vocational Education Marketing in Louisiana. Louisiana Department of Education, Office of Vocational Education, Baton Rouge, Louisiana, 1986.

<sup>3</sup>Policy and Procedure Manual of the Louisiana State Board of Elementary and Secondary Education, Baton Rouge, Louisiana, current revision.

<sup>4</sup>Public Affairs Research Council of Louisiana, Inc. Vo-Tech In-Search of a System. PAR Analysis Number 254, December 1981.

<sup>5</sup>Ibid; and Public Affairs Research Council of Louisiana. Louisiana's Vo-Tech System: 52 Schools and \$100,000,000 Later. PAR Analysis Number 227, January 1978.

<sup>6</sup>Dykes, Op. cit.

Part III  
APPENDICES

Section A  
IMPROVING OVERALL SYSTEM  
MANAGEMENT

Appendix A.1

POLICY



## Appendix A.1

### POLICY

---

RECOMMENDATION A.1: BESE Should Strengthen Its Capacity To Analyze Vocational Education Policy Issues.

---

### IMPLEMENTATION

1. BESE must define the overall purpose of the system in a way that clearly conveys priorities to the local schools and their vo-tech boards (see Appendix C.2). The statement of purpose should indicate who is to be served, the type of services they will be offered, and a set of measurable and attainable objectives--competency levels, placement rates, etc.--that could be used to measure the performance of individual programs and schools.
  2. BESE must set an annual policy agenda outlining no more than ten issues that will be reviewed by research staff. One of the first issues that must be tackled in defining the purpose of the vo-tech system is whether schools should turn out graduates who are trained in a specific skill or who have broad basic skills that render them trainable by private employers. GSRI recommends that greater emphasis be placed on producing trainable graduates, reflecting the difficulty in training people for specific skills in a rapidly changing workplace.
  3. BESE must establish staff--both in-house (an office of policy analysis) and in related agencies such as the State Advisory Council for Vocational Education--to research priority policy issues. The opportunities arising out of consolidation with the Department of Education should be used to build this capability in-house. Policy reports should be distributed to directors, enabling them to participate in the process of policy formulation and to understand the reasoning behind BESE decisions. In addition, the research may reveal program initiatives that could usefully be adopted more widely. The policy analysis office would therefore serve as a conduit for new ideas into the system.
-

## BACKGROUND

The two major aspects of policy analysis are: (1) establishing system and institutional purposes and goals; and (2) determining parameters that define the range of procedures that may be used to ensure that those purposes and goals are met. Other appendices provide information regarding procedures for meeting purposes and goals. This appendix provides background information regarding the importance of clarifying system and institutional purposes and goals, some national perspectives regarding relationships between policy and employer needs, how some states have approached the establishment of system purposes and goals, and the use of labor market information as a planning tool.

### IMPORTANCE

Recent changes in industry needs, citizen needs, educational delivery systems, and funding patterns have caused most states to reappraise their vocational education delivery systems in an attempt to ensure that system purposes are based upon current need rather than on tradition. Since states are forced to play an increasing role in funding vocational education (because of a decreasing Federal presence), they also are increasingly concerned that the purposes and goals of vocational education are soundly based and stated with sufficient clarity to serve as a basis for system functioning. Many states have discovered that vocational education is ineffective and inefficient at least in part because of the lack of such well-founded purposes and goals. Although most (or all) states recognize the need for clear directions, many have discovered that the complex nature of the various factors impinging on vocational education makes difficult the establishment of realistic system and institutional goals.

Much is expected of vocational education, and in view of the heterogeneity of these expectations, it is hardly surprising that vocational educators often are frustrated in their attempts to meet them. Although the term "vocational education" often is used as if it described a single entity, it deals with a broad spectrum of programs and populations, from prevocational and basic skills preparation to occupationally specific, job-oriented training for young people,

adults, and groups with special needs. Goals of vocational education include emphasis on a range of outcomes, including retention of potential dropouts, retention of low-wage part-time jobs under the auspices of work study, economic development, and equity among population subgroups.

Table A.1.1 shows a number of current system purposes along with the range of mechanisms considered conducive to addressing those purposes. To accommodate such a range of possible goals, specification of the statewide purpose of vocational education is often comparable to shaping a mission statement for new legislation. In order for the language to meet satisfactorily all political criteria and provide sufficient flexibility for creative administrators, the result often is largely rhetorical. Conversely, for management and routine operation of the system, particularly at the institutional level, actual goals are often unstated.

Although general agreement may exist regarding mission, funding priorities, allocation methods, and broad operational policies, individual institutions ultimately are competing for scarce resources, and therefore typically are concerned primarily with maintenance and survival and only secondarily with stated system and institutional goals. Similar tensions occur between state and local levels. The state administration typically seeks to achieve a balance across institutions and to work towards standardization and accountability. Local institutions, on the other hand, seek autonomy and freedom from administrative restraints that inhibit their ability to respond adequately to local needs. Where state agencies urge conformity, individual institutions seek diversity. Amid these cross currents of vested interests, changing contexts, and high expectations, it is difficult for state agencies to chart an effective course.

Although establishing realistic purposes and goals is difficult, a number of states have made notable progress in that direction. Also on the positive side is a wealth of information becoming available to assist states in defining their vocational education options. For example, considerable current information is available regarding employer needs and how these needs relate to the purposes and practices

Table A.1.1. System Goals and Examples of Mechanisms to Achieve Them<sup>1</sup>

| Goal                                | Distribute Funds<br>According To:                                                            | Plans Include<br>Information on:                                                                                                              | Demonstrate Coordination<br>With:                                                     | Evaluate<br>According to:                                                                                                                  |
|-------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| *Economic Development               | -Unemployment Rates<br>-Proposals/Economic<br>Development projects                           | -Role of voc ed in local<br>Economic Development plans<br>-Local Labor market needs<br>-Responsiveness to labor<br>market demand              | -Economic Development agencies<br>-Business<br>-Labor                                 | -No. of local jobs created<br>-Increase in per capita income                                                                               |
| *Program Improvement                | -Local Fiscal voc ed<br>-Proposals demonstrating<br>program improvement                      | -Sources of subsequent<br>support<br>-Description of project<br>-Expected outcomes                                                            | -Business<br>-School Board                                                            | -Effects on program quality<br>-Support after project ends<br>-Project outcomes                                                            |
| *Equity                             | -Proportion of state's<br>target population<br>enrolled in voc ed                            | -Steps to encourage<br>-Special services to ensure<br>successful completion                                                                   | -Social Service Agencies<br>-Special Interest Groups<br>-Business                     | -No. enrolled, completing<br>-No. employed compared<br>to other students                                                                   |
| *Industrial Stability<br>and Growth | -Enrollments in programs<br>for emerging occupations<br>-Number in declining<br>occupations  | -Projections of demand for<br>emerging occupations<br>-Projections of declining<br>businesses<br>-Relation of education to<br>projected needs | -Business<br>-Labor<br>-JTPA<br>-Employment Service<br>-Economic Development Agencies | -Proficiency in new skills<br>-Employability and<br>flexibility<br>-Rate of successful<br>transitions to new<br>occupations and changes in |
| *Productivity                       | -Proposals demonstrating<br>innovative approaches<br>-Measures of local<br>economic distress | -How projects will improve<br>problem-solving skills,<br>work habits<br>-Measures of productivity                                             | -Local employers<br>-Labor<br>-School Board                                           | -Problem-solving skills<br>-Work habits<br>-Generic occupational skills                                                                    |
| *Education                          | -Enrollment in voc ed<br>-Fiscal need<br>-Program costs                                      | -How basic skills are<br>incorporated in programs<br>-Coordination of academic<br>and vocational courses<br>-Local Basic skill needs          | -Parent Organizations<br>-Social Service Agencies<br>-School Board                    | -Academic Achievement<br>-Generic Occupational skills<br>-Basic skills<br>-Dropout rates                                                   |
| *Employment                         | -Local unemployment<br>rates                                                                 | -Relation of instruction<br>to labor market needs<br>-Employment assistance                                                                   | -Labor<br>-Business<br>-Employment service<br>-JTPA                                   | -Employment rates<br>-Wage rates<br>-Job search skills                                                                                     |

<sup>1</sup> Rosenfeld, S. (1984, June). Choosing among goals for vocational education. In Setting Goals for Vocational Education: A Panel Discussion of Vocational Education Policy in the South Before the Executive Committee of the Southern Growth Policies Board. Panel discussion conducted in Atlanta, Georgia. Research Triangle Park, NC: Southern Growth Policies Board.

of vocational education. Because of the importance of these relationships, the next section of this paper provides a summary of current related information.

#### NEEDS OF EMPLOYERS

To the extent that postsecondary vocational education is intended to support economic development, industrial stability and growth, and productivity, system and institutional goals must include an emphasis on relating instructional content to employer needs. A great number of recent studies indicate a disparity between apparent contributors to job success and conventional wisdom regarding training needs, and between what employers say they need and their needs as demonstrated through their hiring practices and reward incentives. These disparities have strong implications for vocational education. Further, recent studies indicate that a vocational emphasis on certain "high-tech" occupational categories can prepare students for entry into the most rapidly expanding segment of the job market; however, a quite different emphasis is required to prepare students for entry into the "service" sector, which represents, by far, the larger portion of the employment opportunities. The following three subsections of this paper are discussions of these aspects of employer/marketplace needs as they relate to postsecondary education.

##### Basic Skills vs. Job-Specific Training

There are widespread indications from employers and employer organizations that many vocational education graduates do not have the basic knowledge, skills, and attitudes essential to success in the workplace.<sup>1</sup> Employers indicate that the major requirement for continuing success in the workplace is the ability to adapt to change, that the continual evolution of work functions will require that workers master new skills throughout their lives, and that the ability to learn will be the essential characteristic of the successful employee. Employers also indicate that the primary competencies needed both to perform adequately in entry-level jobs and to continue the learning process are those that we expect all high school graduates to have (i.e., proficiency in reading, writing, arithmetic, and



reasoning). One source<sup>2</sup> listed the following as the primary competencies needed for job success:

- Command of the English language
- Ability to read
- Ability to write
- Oral communications skills
- Computational skills
- Knowledge of science and technology
- Knowledge of social and economic studies
- Reasoning and problem-solving skills
- Interpersonal relationships skills
- Good personal work habits and attitudes

Employers indicate that acquiring knowledge and skills related to specific occupational categories can enhance employability but cannot substitute for proficiency in reading, writing, arithmetic, and reasoning. Several examples of these employer responses follow.

The State of Wisconsin's Education for Employment proposal in their 1985-86 state budget is based in part on employer responses regarding the relationship between education and employment. In a survey of over 800 Wisconsin employers, business people indicated that:

(1) young people fail to get jobs because of deficiencies in the application and interview process, a poor attitude toward work, poor appearance, and lack of specific job skills; (2) new employees lose jobs because of improper work habits and poor attitudes toward work; and (3) young applicants and new employees have a poor understanding of the U.S. economic system and general business operations. The surveyed employers asked that more emphasis over the next decade be placed on the following: the ability to learn new skills, oral and written communications, computer literacy, reading, arithmetic, business economics, applied science, and human relations and decision making.<sup>3</sup>

The South Carolina State Council on Vocational and Technical Education recently conducted a mail survey of South Carolina employers to identify employer concerns and practices as these relate to vocational education. The resulting report to the General Assembly noted that, in some industries, more specialized job skills will be

needed in order for employees to function in an increasingly automated and economically competitive society. In other industries, a sound background in academic basics and competence in generic transferable skills was believed to be essential for enhancing worker adaptability to meet changing industrial needs.

Although most employers were generally satisfied with vocationally trained workers, they were increasingly concerned about several employment issues. The survey indicated a significant shift in what employers say they want and expect in entry-level workers. Although specific job skills are still important, basic skills and positive work habits and behaviors are the entry level worker characteristics most sought by employers. This shift appears to be the result of several social and economic factors: a reordering of social values away from the traditional work ethic, economic changes and technological improvements that demand greater flexibility in the deployment of the workforce, and the increasing need and capability of employers to provide on-the-job training.

A growing number of employers indicated they are willing to do their own job-specific training, but they expected secondary programs to focus on the "basics" that will enable employees to benefit from this training. The four worker characteristics most preferred by employers included: good work habits and attitudes, interpersonal skills, specific job skills, and prior work experience. Contrary to several recent studies, "basic academic skills" was rated relatively low. However, employer comments and other ratings indicated that deficits in reading comprehension, writing, oral communications, arithmetic, reasoning, and problem-solving were a serious concern, particularly in more service-oriented and technical occupations.<sup>4</sup>

A recent survey of business and industry in West Virginia conducted by the West Virginia State Council on Vocational Education concluded that employers want employees with the following skills and in the following order: (1) basic academic skills; (2) employability skills; and (3) specific technical skills. Basic academic skills (can read, write, and do arithmetic) was rated as "very important" by 69.5 percent. Employability skills (able to deal with people) were ranked

next, by 67.5 percent; and appropriate personal hygiene, grooming, and dress were cited by 49.6 percent. Ranked as "very important" technical skills were: the required specific technical skills and knowledge (41.1 percent); and the ability to read, understand, and apply technical information (40.7 percent).<sup>5</sup>

In two recent employer surveys conducted by the Research Triangle Institute<sup>6</sup> (in Texas and in North Carolina), employers in a wide range of business/ industry segments were asked to rate the relative importance to job success of each of the 45-55 major competencies identified as being required for each of the approximately 40 occupational categories being surveyed. The resultant employer ratings showed attitudes toward work and interpersonal relationships to be the most critical. This was followed first by basic skills (in verbal communication, reading, arithmetic and problem solving) and then by a general understanding of underlying theories and principles related to broad occupational categories. Last in importance was specific skills related to a specific job category.

In spite of overwhelming evidence (such as is noted above) that employers consider work attitudes and basic skills to be essential to job success, employers generally tend to hire on the basis of job-specific training and experience. The typical employer does not advertise for one who has good work habits and can read and write; rather, he advertises for someone who can weld or repair automobiles.

In contrast to the situation in Japan and most of Europe, there is only a weak relationship in the United States between students' performance in high school (for example) and their future success in the labor market. Analysis of the determinants of unemployment, the wage rate, and the earnings of young people (using High School and Beyond survey data) has indicated that receiving higher scores on tests of verbal, mathematical, science, and civics knowledge gave students seeking fulltime work after high school (those who did not go to college) no advantage in labor market success immediately after graduation. High-level performance on standardized tests had no impact on wage rates of the young men who worked and slightly lowered the wage rates of young women in the years immediately after graduation. A high

overall grade point average was associated with slightly lower wage rates of young men and slightly higher wage rates of young women in the two-year period following high school.

Studies of the long-term consequences of academic achievement in high school for those who do not go to college also show that grades have small effect. For those in clerical or blue-collar jobs, there is no association between performance on standardized tests during high school and wage rates and earnings years after graduation, and for high school graduates, regardless of occupation, getting 500 on both math and verbal SATs rather than 400 resulted in only a five to eight percent increase in earnings over the course of a lifetime.<sup>7</sup>

Does the small reward for good basic skills imply that the social benefits of learning are similarly small? The answer is no. Industrial psychologists have conducted hundreds of studies involving tens of thousands of workers on the relationship between productivity and its various predictors, namely, aptitude tests, years of schooling, grade point averages, years of work experience, age, reference checks, and assessments made in interviews. These studies show that tests such as the SAT, ASVAB, and GATB that measure the basic communication skills and reasoning abilities that are a central part of the schools' instructional goals can predict both success in training and job performance and are considerably better predictors of job performance than any other indicator used to select people for entry-level jobs.<sup>7</sup>

There are several reasons why employers who want productive workers fail to hire such workers and reward them with higher wages. Research shows that in most cases, wage rates are determined by the job category, not by worker productivity. Comprehensive measures of productivity are not definable for most jobs, so piece rates and individualized incentives are uncommon. Supervisory assessments are known to be unreliable, so even when wage increases are based on those assessments, the wage increases are smaller than the increase in productivity anticipated by the employer.

One reason American employers seldom use school grades to select new hires may be that most schools do not send transcripts to employers even when the information is requested. Also, although employment

tests can be very effective in predicting on-the-job performance, the Guidelines on Employment Testing Procedures promulgated by the Equal Employment Opportunity Commission (EEOC) in 1971 caused a significant reduction in the use of such tests. The guidelines required that each firm proposing to use a test do a very expensive validation study on its own employees and prove not only that the test was valid but also that no other test or procedure having a less adverse impact on women or minorities was more valid. A study of this kind is feasible and cost-effective only for extremely large employers.<sup>7</sup>

In summary, employers appear to be sending mixed signals regarding the desirability of basic skills training vs. job-specific training.

#### "Low Tech" vs. "High Tech" Training

A number of studies<sup>8</sup> indicate continuing shifts in occupational demand. Projections for the year 2000 indicate high growth in occupations that will require considerable specialized education/training beyond high school. These high-growth areas include such occupations as data processing, machine mechanics, paralegals, computer operators, and office machine service technicians. However, high demand is also projected in occupations that tend to have low skill requirements, to be nontechnical, and to place considerable emphasis on communications and interpersonal skills rather than on scientific/technical skills. These high-demand areas include such occupations as secretaries, nurses' aides, janitors and sextons, sales clerks, and cashiers. Thus, a two-tiered labor force may emerge, with decreased specific occupational education required at one level and increased specific occupational education required at the other level. Another related projection is that the trend toward a service/information economy likely will result in smaller business organizations than result from our current economy. This small business environment likely will require of employees less specialization but a broader range of knowledge and skills.

The growth of specialized and high-tech manufacturing will not keep pace with the loss of manufacturing jobs. As a result, manufacturing, which comprised 19.0 percent of all jobs in 1980, will comprise only 13.3 percent by 2000, representing a loss of 2.9 million



jobs. We expect to have 53 percent fewer jobs in steel alone by the year 2000. The largest growth sectors will be services, retail trade, and F.I.R.E. (finance, insurance, and real estate)--often loosely referred to, together with transportation, communications, utilities, and government, as the "service" sector. In 1980, about 73 percent of the nation's work force was employed in non-goods-producing industries; in 2000 that figure will probably be about 81 percent. Between 1980 and 2000, trade industries are expected to create about 11.0 million new jobs, service industries about 12.7 million, F.I.R.E. about 4.4 million, and government about 1.6 million. One eminent futurist predicts that by the year 2000, 71 percent of the labor force in industrialized countries will work in the information and communications sector.<sup>9</sup>

Leading the way will be computer-related industries (as we enter the "information age") and health services (as the population ages). Personal computer annual sales, for example, are expected to more than double in the next four years, from \$6 million in sales in 1983 to more than \$14 million in 1987. The fastest growing industries in terms of employment (according to the U.S. Department of Labor), are, in order, eating and drinking places, other retail trade, hospitals, miscellaneous business services, other medical services, doctor and dentist services, new construction, wholesale trade, banking, and private education services. Of these top 10, only new construction is not in the service sector.<sup>9</sup>

The shift from a goods-producing nation to a service economy has implications beyond the new mix of occupations. First, new service industries--other than trade--are likely to be located in or near metro areas where markets are concentrated and there is an adequate infrastructure. Rural communities will not gain as much new employment as they have in the past with manufacturing. Second, services are not as exportable as goods, and thus services cannot sustain local economies without some associated goods production. Third, service businesses are generally smaller than goods-producing businesses and less stable. Currently, 45 percent of all establishments in the service sector employ fewer than 50 people, whereas only 23 percent of

those in the goods-producing sector employ fewer than fifty. Fourth, the jobs in the service sector, although predominantly white collar, are more likely to be lower paying since they require fewer skilled workers and, in the past, have relied more heavily on female workers and have paid them less.<sup>10</sup>

Several states have reported recent declines in enrollment in postsecondary technical vocational education.<sup>11</sup> Although this decline apparently can be traced to a variety of causes, a major cause is the above-noted decline in the proportion of new jobs in "high-tech" occupational categories. Some of the implications for training are clear. If vocational education is to prepare students for employment in that portion of the labor force that will provide the most jobs, more emphasis will be placed on "low-tech" training. Unfortunately, the optimum content of such training has not been fully defined. However, it is thought to include the basic skills and attitudes toward work noted in the previous subsection.

#### "Cluster-Related" vs. Job-Specific Training

Several states (e.g., New York, Texas, North Carolina, South Carolina, Oregon) and a number of institutions within states appear to be moving toward "cluster-related" as opposed to job-specific vocational education. Advocates of focusing on clusters of occupational categories argue that the changing job market indicates the desirability, particularly in secondary school, for vocational education to deemphasize job-specific programs (e.g., carpentry, cabinet making, auto body repair, cosmetology, ornamental horticulture, home interiors, clothing services) and to emphasize more broadly based programs (e.g., materials and processing technology, basic electricity/electronics technology, principles of technology, business data processing, marketing, accounting, business management/ownership). These advocates suggest that teaching the vocational principles and practices related to a range of occupations having reasonably similar processes, materials, and/or products will reinforce basic skills development while instilling a broad range of work-related knowledge and skills critical to adaptability, transferability, and upward mobility. This emphasis also would support the need for a broader

range of skills that would be less likely than specific occupational skills to become obsolete in the face of rapid technological change.

One example of a "cluster" program is an industrial technology program at Bowling Green State Vocational Technical School (Bowling Green, Kentucky). This program combines subjects formerly taught in separate programs into a single comprehensive one that includes computer numerical control, programmable controller, robotics, pneumatics, hydraulics, and electronics. Another example is Lincolnton (NC) Vocational Technical School/Gaston Community College, which is planning cluster programs in Industrial Technology, Business and Marketing, and Health and Human Services.

Of note is that "cluster based" training is considerably more prominent in secondary than in postsecondary schools. In general, postsecondary schools across the country recognize a variety of strategies for achieving vocational education goals.<sup>12</sup> These typically include: (1) providing the skills and knowledge needed to learn new jobs easily and to contribute to improvements in productivity; (2) improving the transition from school to work and on-the-job performance; (3) more efficiently employing underutilized human resources; and (4) supporting local economic development and growth. The first strategy is based on the assumption that employers conduct their own on-the-job training, that modern technology-based work requires strong analytical abilities, and that employees should be adaptable and able to learn new tasks and/or jobs in a minimum of time. The second strategy assumes that schools provide job-specific training and that on-the-job training will be minimized, that employees remain in a particular job for an extended period of time, and that academic requirements are set strictly by the requirements of the occupation toward which the education is directed. The third strategy presumes that employers will hire those easiest to train and requiring the least assistance, but that those most difficult to train represent underutilized resources; so that government-supported programs, with equal opportunity guaranteed in the Constitution, ought to improve economic opportunities for those who are disadvantaged. The last strategy assumes that vocational education, if properly designed and

used, can influence the local business climate and stimulate local growth.

#### EXAMPLES

A number of states have made (and are making) concerted efforts to establish system and institutional goals for vocational education intended to enhance activities toward service provision and economic stability while decreasing tension between delivery systems and institutions.

##### Texas

Texas recently made an attempt at a comprehensive overhaul of its occupational education system.<sup>13</sup> The 1981 House Concurrent Resolution 23 authorized a study calling for a unified system for subbaccalaureate education and training to meet the following criteria:

- . Be responsive to actual and projected job needs.
- . Be structurally articulated and non-duplicative.
- . Be equitable and appropriately targeted.

The conceptual model for this study is shown in Figure A.1.1. Improved economic productivity was seen as a major objective of the system, which operates by providing individuals with the necessary skills, based on adequate knowledge from the workplace. By formalizing the information flow and determining particular (priority) occupations towards which the system should be directed, funds can be targeted to employment areas of special need through competency-based curricula.

Service providers were specified by (a) identifying all state agencies having statutory responsibility for the provision of vocational/occupational education and training, and (b) identifying the jurisdictions and any unacceptable duplications of effort. Sixteen state agencies and 36 boards and commissions were identified as having some responsibility over vocational/occupational education, including program delivery, coordination, licensing, and regulatory and/or review functions at the state or local level.

For selected priority occupations, competencies were identified through analysis of secondary data and a survey of employers. Assignment of education/training to particular subsystems was based on the general age and ability levels of employees performing the occupational tasks. For example, age levels were associated with specific providers as follows: secondary (16-18 years); postsecondary (18-25+ years) and employer (16-25+ years).

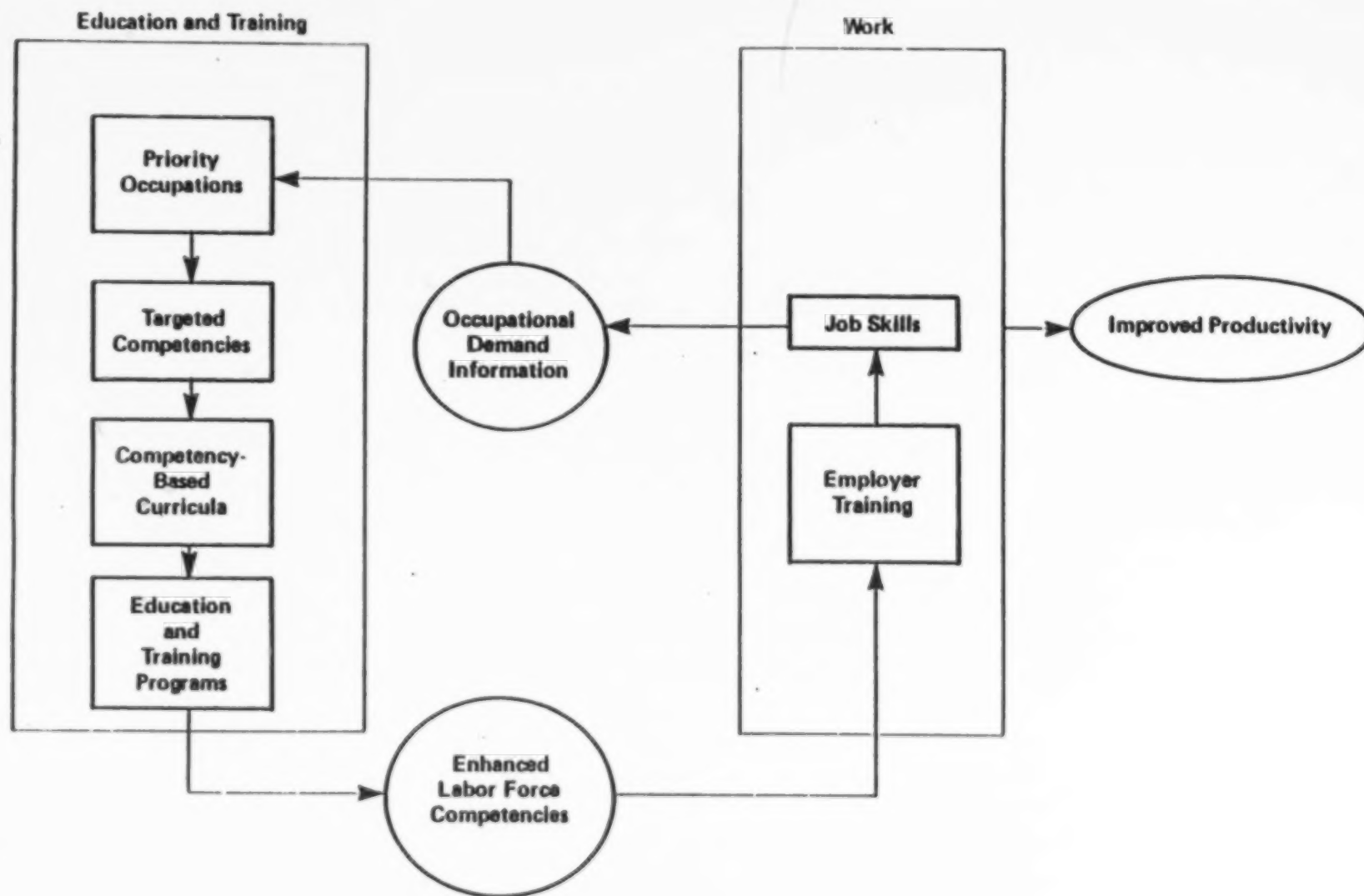


Figure A.1.1. A System for Work Oriented Education and Training



Ability levels were determined from the level of difficulty (high, average, low) associated with particular functions within the "Data, People, Things" hierarchy of the Fourth Edition of the Dictionary of Occupational Titles. Role and scope of service providers were determined by relating the age and ability levels of the occupations to program delivery. Presumptive delivery to the postsecondary sector, for example, was assigned in the following case:

- . Preferred providers were identified by employers as postsecondary/employer.
- . Age levels were high in the 18-25+ category.
- . Ability level was high for the required competencies.
- . Current or future minimum experience requirements were greater than 12 months.
- . The Specific Vocational Preparation rating in the DOT was greater than six and/or the occupation was apprenticeable.

Underlying this presumptive delivery approach was an explicit conceptual model of articulated curricular structure (see Figure A.1.2), which assumes a continuum of vocational preparation from prevocational (occupational awareness) in the elementary grades, to highly specific training provided either by postsecondary institutions, on the job, or some combination of both.

#### Minnesota

Another state, Minnesota, has recently resolved a long-standing problem in the relationships between Area Vocational Technical Institutes<sup>14</sup> (AVTIs) and other postsecondary educational institutions. In 1984, The State Board of Vocational Technical Education became the sole state agency with jurisdiction over all postsecondary and extension programs offered through the AVTIs. The responsibility for secondary and extension programs offered through high schools and secondary cooperative centers remains with the secondary state Board of Education. Thus, Minnesota went from a secondary to a postsecondary "sole state agency" for vocational education, joining the small, though growing number of states either making or contemplating changes in postsecondary governance structures. In Minnesota, as in Texas, vocational education is responding to rapidly changing needs of employers as well as to the increasing number of older, part-time students requiring vocational education and training. Earlier governance models, adequate enough in their time, were no longer seen as appropriate for the current demands on the system. The separate post-secondary State Board is seen as a move to unify and strengthen the role of AVTIs in Minnesota in light of the new context for vocational education in the state.

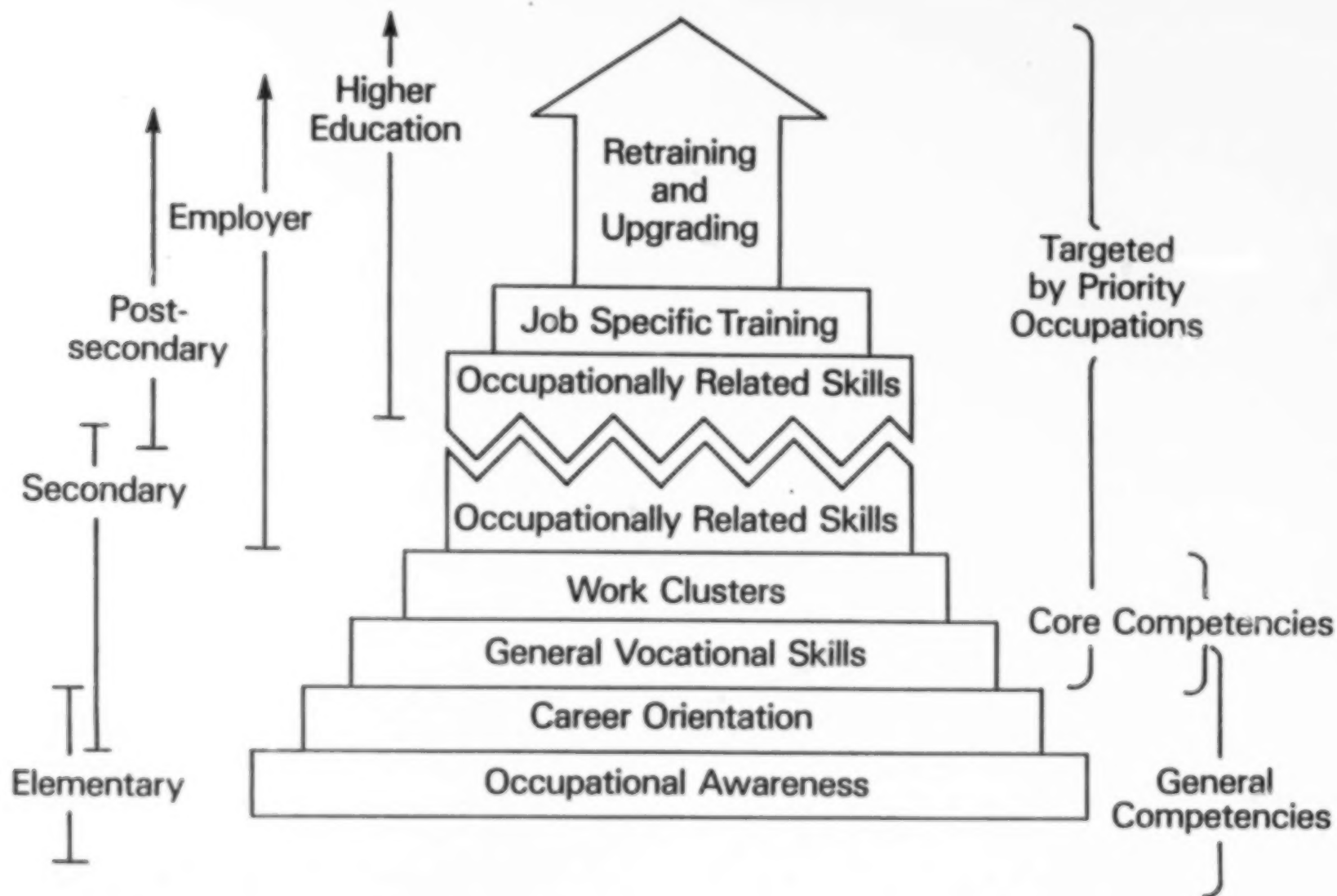


Figure A.1.2. Articulated Curricula Structure

## North Carolina

North Carolina recently conducted a study of vocational-technical education<sup>15</sup> to (among other things) determine appropriate goals for various deliverers of vocational-technical education. A major problem identified by the study was inefficient use of resources resulting from overlapping responsibilities between agencies. A major recommendation of the study was to redefine the goals of secondary and postsecondary vocational education so as to enhance cooperation between the system and the flow of students through the system. Strong resistance from secondary school vocational education personnel has apparently (at this point) delayed legislative attempts to adopt realistic system goals.

## Illinois

Recently, the Illinois State Board of Education directed the State Superintendent to conduct a comprehensive policy study on the issue of "education for employment."<sup>16</sup> This study was to have as its goal the development of a policy to clarify the roles and responsibilities of elementary, secondary, and postsecondary schools in preparing individuals to enter and perform successfully in the world of work. The recommendations of this study (as they relate at least in part to postsecondary vocational education) were as follows:

- (1) The State Board of Education should direct the State Superintendent to develop a new policy statement on education for employment which should incorporate the following premises and include consideration of vocational education, employment and training, career education, and adult education programs.
  - Education for Employment is a process within the overall purposes of schooling which supports the positions that (a) all students must learn in areas fundamental to their continuing development, and that (b) all students must be assured of readiness for either immediate employment or continued education in preparation for later employment upon graduation from secondary school.
  - Education for Employment is a responsibility shared by schools, the private employment sector, and all levels of government to address the need for continuing development of individual and societal economic strength.
  - Education for Employment must continuously address the evolving nature of employment market demands, technological advancements, the composition of the work force, and the academic, technical and attitudinal development of its students.

- (2) The State Board of Education should direct the State Superintendent to develop and recommend to the Board a plan for regional delivery of education for employment which addresses the education and training needs of the state's youth and adult population. A plan for regional delivery of education for employment must include consideration of:

- A collaborative involvement of secondary and postsecondary schools and public and private employment sectors including local and regional branches of government.
- The population characteristics of the existing and emerging work force.
- An assurance of basic skills and continuing academic development of the students, at least through completion of secondary school.
- The development of appropriate counseling and other corollary support services to strengthen both program and employment placement for students, including an emphasis on individualized career planning for secondary and postsecondary students.
- The continuously evolving nature of state-of-the-art technology and the application of technology in traditional fields of employment.
- Improved compatibility between program sites and employment environments, including an emphasis on equipment upgrading in both secondary and postsecondary program sites.
- A system for continuous staff upgrading and retraining to augment and update teacher preparation.
- An improved match between programs and employment market demand and availability, emphasizing local, regional and statewide employment needs.
- A regional assessment system which incorporates criteria set in state regulation, comprehensive regional assessment programs, and periodic reports to the State Board of Education regarding the results of the assessments and the ways in which the results will be used to modify the program and otherwise improve student learning.
- Regional systems of appropriate size and number to assure equitable access to all students, programs

of sufficient scope and depth to address continuing needs, and cost-efficient administration of the systems.

- (3) The State Board of Education should direct the State Superintendent to place high priority, during the period between now and the time a regional structure for education for employment is in place, on assuring that students enrolled in employment-related programs have access to state-of-the-art equipment either in the classroom or in a community-based worksite.
- (4) The State Board of Education should direct the State Superintendent to implement, no later than January 1, 1984, a special industry-based incentive grant program designed to encourage meaningful linkages between business, industry, labor, and the schools and specifically directed to address the loan of worksites and workers for the training of teachers and students in modern environments.

#### Colorado

A draft planning paper for the State of Colorado<sup>17</sup> notes that a truly comprehensive system of work preparation has a variety of components for those who want, need, and can benefit from them. Recommended instructional programs for their vocational education system include:

- Occupationally Specific Programs. Designed in concert with local business and industry, through program advisory committees, to provide specific skill training. Applied basic academic skills, entrepreneurship skills, employability skills, and leadership skills are an integral part of these programs. Students have clear occupational objectives and intend to immediately enter the labor market in their chosen field or pursue further training in a related field.
- Occupational Cluster Programs. Designed in concert with business and industry to prepare people for very high demand beginning jobs that with further training lead to advancement in a career path. Employability and lifelong learning skills are an essential part of these programs. Student's long-term career objectives may be less clear. Programs are modularized to allow open entry and exit and transfer into Occupationally Specific Programs.
- Fast Track Training Programs. Designed in concert with local business and industry, through local program advisory committees, and may involve other government agencies to provide occupationally specific training.



These programs are identical to Occupationally Specific Programs except that they are conducted over a shorter, more concentrated time frame and are open entry/open exit.

- Adult Retraining Programs. Provide courses from within longer Occupationally Specific Programs or are specially designed to meet specific upgrading or retraining needs of industries or workers. Student's career objectives are very specific.
- Customized Training Programs. Geared specifically to address the needs of new or expanding companies for trained workers in a community.
- Tech-Prep or Pretechnical Programs. Designed in concert with business and industry and providers of advanced technical training programs to prepare people for training in technical occupations. Frequently offered at the secondary level as part of other occupational education programs. Principles of Technology (applied physics) is an example of this type of program.

#### LABOR MARKET INFORMATION

Across the nation, there appears to be a strong correlation between excellence in vocational education delivery and the use of labor market information and other standardized data for program determination. At the same time, there is a widespread perception that the major sources of labor market information, the National/State Occupational Information Coordinating Committees (N/SOICCs) have been ineffective in providing data useful for vocational education planning. The following outlines the NOICC/SOICC rationale, notes the advantages of using multiple data sources for program determination, and summarizes ways in which several states are using occupational information.

##### Perceptions

The NOICC/SOICC concept first emerged formally in Federal law in Section 161b of P.L. 94-482, the Education Amendments of 1976. As Congressional Committee reports make clear, reasons for the NOICC/SOICC provision included the perceived inadequacies of the data being provided to Congress regarding persons served by vocational education nationally, the outcomes experienced, and the costs of services. In addition, however, the new network, although Federal in origin, was

intended to provide assistance through the SOICCs in meeting the data requirements of those planning for human resources programs at state and local levels. The need was recognized for some standardization both of terminologies (e.g., occupational classifications) and, to the extent possible, methodologies for analyzing and reporting the data. Also stated was the need for coordination between various users and producers of occupational supply and demand data.

New Federal legislation (the Carl Perkins Act, P.L. 98-524) reestablishes the requirement for a SOICC in any state receiving Federal vocational education funds and reaffirms the need for communication and coordination regarding data provision and use between service providers at all levels. Implicit in the legislative charge is acknowledgement of the importance of better understanding of the linkages between vocational program planning and the ultimate employment of those completing/leaving the programs.

Although the NOICC/SOICC structure is Federal in origin and support, its utility can be determined only at the state and local levels. For the SOICC to be successful as other than a compliance mechanism for the purposes of meeting Federal requirements, at least two conditions must be met. First, there must be a consensus among vocational education decision makers that informed knowledge of labor markets will improve both the results of, and planning for, vocational education. Second, the SOICC must be perceived to be the most appropriate source for coordination and dissemination of the data from all sources. There are arguments for and against this proposition. Proponents argue for more sophisticated awareness of the basic operation of labor markets among vocational education planners, administrators, and consumers. They argue that such knowledge can lead to improvements in both planning for occupational programs and in quality of instruction. Furthermore, some understanding of current and projected occupational demand (numbers and characteristics of jobs) will enhance career planning of individuals who are making choices in increasingly competitive job markets.

Opponents dismiss these arguments as naive in view of the imprecision associated with occupational employment projections even at

the national and state levels, not to mention the local level. In addition, undue concentration on a program-to-occupation match encourages inappropriate tracking of students, with consequent overemphasis on specialization at the expense of basic skills. Employers in large firms (whose opinions are most often expressed in national or statewide forums, but who do not constitute the bulk of employing institutions in the U.S.)<sup>18</sup> indicate that only general skills need to be taught to those entering employment in many jobs, since occupationally specific skills are best learned on the job under employer supervision. Moreover, extensive lag time between identifying labor market shifts and applying programmatic adjustments at the level of individual institutions reduces the efficiency of such approaches and can lead to counterproductive swings in responses of occupational supply to demand.

#### Need For Multiple Sources

In view of such uncertainty regarding the role of labor market information in vocational education planning, what is the optimal approach for states that hope to improve data availability for program planning; and, in particular, what are some of the specific policy implications of improved labor market data? The best strategy (particularly for postsecondary vocational education systems, which are more directly accountable both to students and employers for occupationally specific program orientation) probably lies between the extremes noted above. Overdependency on data of doubtful validity is as risky as ignoring useful information on employment shifts (e.g., from manufacturing to service industries) as well as realignments in industrial/occupational composition and job requirements caused by technological change.

Recent literature from the World Bank<sup>19</sup> reassessing the relevance to current educational policy of previous "manpower" planning methods suggests a mixed strategy. Multiple measures are preferable to a single data source. The former suggests a routine scanning of the occupational environment through a combination of forward "tracing" mechanisms (e.g., followup studies) as well as complementary backward data series on employment as it relates to educational level and

program content (e.g., employer surveys). Thus reliance, for example, on occupational projections alone as a data source for vocational education planning is less desirable than formal assessment of a variety of indicators such as hiring patterns, differential wage rates by occupation and industry, occupational mobility across occupations and regions, and the changing nature and requirements of jobs caused by automation and the impacts of computers. No single source provides such data, but it is possible to obtain some information from existing national and state data systems in many states and territories.<sup>20</sup>

#### Examples

Examination of use of labor market information in other states suggests that, when used analytically in conjunction with other available data sources, occupational projections can be useful in vocational education planning. In today's rapidly changing economy, identifying and interpreting the many labor market signals available to the analyst is a challenging task, and solutions to problems of unemployment, underemployment, and optimal use of human and economic resources are elusive. However, the vocational education planner should be prepared to access and consider the best available information on the economy in evaluating new options. Statutory providers of the data should be continually seeking cost-effective ways to improve data quality and technical methodologies. To do otherwise would be to surrender one of the most important advantages of the information age. The extensive employment "churning" which has occurred recently (in states such as Louisiana and Texas) as a result of rapid fluctuations in industrial development in petroleum-based industries makes routine scanning of the dimensions of occupational employment especially important for educational planning.

#### Texas

Texas is currently using an approach, originally developed by the Research Triangle Institute, for prioritizing occupations of special economic concern for targeted appropriations by the State Legislature. In accordance with State Law HB 72 Part H Section 21.112 (c), occupational employment projections are prepared from the national/state Occupational Employment Statistics program survey data for each of the substate regions. These projections then are reviewed by

several state and local constituencies, including employer representatives. Priority occupations are then selected and approved by the State Board of Education in response to local considerations and by objective criteria that include importance of the occupation to a particular industry sector, employment size, and training time. The set of occupations is updated annually, and priority is given to requests for vocational programs addressing occupations identified in the list.

Other uses of occupational projections data, usually in association with other data sources such as followup or additional special studies, were documented recently in a study of occupational information use by the U.S. Bureau of Labor Statistics.<sup>21</sup> The study involved on-site visits and follow-up telephone contacts with almost 50 agencies in four states (Florida, Maine, Utah and Pennsylvania). Project focus was on exemplary use of occupational projections in three major user groups, one of which was vocational education. Of 19 respondents from vocational education, seven were from postsecondary institutions or agencies. Examples were obtained of administrative decisions involving occupational projections.

Table A.1.2 synthesizes types of activities in which the projections data were used and reasons for use by importance level across both secondary and postsecondary agencies. Reasons for use varied from legal mandate in state law (37 percent of the users), to a written state policy (one percent of the users), to an unwritten policy (59 percent of the users). The level of reliance on the data varied approximately evenly across users and activities from "considerable" to "moderate". Activities varied from planning, monitoring, research, and evaluation, to guidance and counseling, placement, in-service training, and responding to firm-specific requests.

Table A.1.3 separates out the postsecondary responses to a question asking for specific examples of recent decisions informed by occupational projections data. Respondents were from three of the four states, (Maine, Utah and Florida) and represented several types of postsecondary institutions. Decisions included both addition of new programs and termination of existing programs. Also a major equipment purchase was justified in one area vocational center. Although it should be emphasized that occupational projections data are only one of several sources to be considered in planning or operating vocational education programs, these findings suggest that projections are a recognized and useful tool.



Table A.1.2. Types and Reasons for Use Of and Relative Importance for Those Uses of Occupational Projections Data in Secondary and Postsecondary Vocational Education Agencies in Four States

| 1<br>REASON FOR<br>USE | 2<br>STATE | 3<br>SECONDARY/<br>POSTSECONDARY | 4<br>IMPORTANCE<br>LEVEL | 5<br>ACTIVITIES FOR WHICH DATA ARE USED                                   |
|------------------------|------------|----------------------------------|--------------------------|---------------------------------------------------------------------------|
| 3                      | U          | S                                | 1                        | STATEWIDE AND REGIONAL PLANNING                                           |
|                        |            |                                  | 2                        | MONITORING AND APPROVING PROGRAMMATIC EXPENDITURE FUNDS                   |
| 3                      | U          | P                                | 1                        | PLACEMENT                                                                 |
|                        |            |                                  | 1                        | PLANNING                                                                  |
| 3                      | U          | S                                | 2                        | VOCATIONAL EDUCATION COORDINATION FOR DISTRICT                            |
|                        |            |                                  | 2                        | COORDINATING INFORMATION SYSTEM PROJECT                                   |
| 3                      | U          | P                                | 2                        | PROGRAM PLANNING                                                          |
|                        |            |                                  | 2                        | REPORTING TO STATE AGENCIES                                               |
| 2                      | U          | S                                | 1                        | MAINTENANCE OF INFORMATION SYSTEM DATA BASE                               |
|                        |            |                                  | 1                        | INSERVICE TRAINING WORKSHOPS                                              |
|                        |            |                                  | 2                        | INDIVIDUAL STUDENT CONTACT                                                |
|                        |            |                                  | 2                        | ANNUAL PLANNING PROGRAM STARTS, STOPS OR MAINTENANCE                      |
| 3                      | U          | P                                | 2                        | PROGRAM PLANNING                                                          |
|                        |            |                                  | 2                        | COUNSELING & GUIDANCE                                                     |
| 3                      | U          | P                                | 2                        | PROGRAM PLANNING                                                          |
|                        |            |                                  | 2                        | GUIDANCE/COUNSELING                                                       |
| 3                      | M          | P                                | 1                        | JUSTIFY NEW AND EXISTING PROGRAMS                                         |
|                        |            |                                  | 2                        | PLACEMENT OF GRADUATES IN CAREER OPPORTUNITIES                            |
| 3                      | M          | P                                | 1                        | PROGRAM DESIGN AND SELECTION, (CONTINUATIONS, EXPANSIONS)                 |
|                        |            |                                  | 2                        | PLACEMENT PURPOSES                                                        |
|                        |            |                                  | 2                        | CAREER SEARCH FOR ADULT ENROLLEES                                         |
|                        |            |                                  | 2                        | PRESENTATIONS TO SERVICE CLUBS                                            |
|                        |            |                                  | 2                        | FORMAL JUSTIFICATIONS, LOBBYING FOR PROGRAM INITIATIVES                   |
| 1                      | M          | S                                | 1                        | DEVELOPING 5 YEAR PLAN FOR SEC/P.S./ADULT VOCATIONAL EDUCATION            |
|                        |            |                                  | 1                        | ASSISTING IN DEVELOPING PROGRAM PROPOSALS                                 |
| 1                      | M          | S                                | 1                        | INITIATING/CONTINUING/TERMINATING SECONDARY VOCATIONAL EDUCATION PROGRAMS |
|                        |            |                                  | 1                        | GUIDANCE AND COUNSELING FOR CAREER EDUCATION                              |
|                        |            |                                  | 1                        | INITIATING/CONTINUING/TERMINATING ADULT VOCATIONAL EDUCATION PROGRAMS     |
| 2                      | P          | S                                | 1                        | STATEWIDE LEADERSHIP IN DEVELOPMENT OF EDUCATION                          |
|                        |            |                                  | 1                        | PROGRAM DEVELOPMENT (INITIATION, SUPPORT, MODIFICATION)                   |
|                        |            |                                  | 1                        | PROMOTING ECONOMIC DEVELOPMENT                                            |
| 2                      | P          | S                                | 2                        | DEVELOPING, PLANNING, DELIVERING OF CAREER DEVELOPMENT ACTIVITIES         |
| 1                      | P          | S                                | 1                        | PROVIDING SPECIFIC SKILLS                                                 |
|                        |            |                                  | 1                        | MEETING LABOR REQUIREMENTS OF LOCAL FIRMS                                 |
|                        |            |                                  | 1                        | PREPARING 5 YEAR PLAN FOR TECHNICAL SCHOOL                                |
| 3                      | P          | S                                | 1                        | APPLYING FOR FEDERAL ADULT EDUCATION PROGRAM DOLLARS                      |
|                        |            |                                  | 1                        | PLANNING FUTURE ENROLLMENTS IN ADULT EDUCATION                            |
|                        |            |                                  | 1                        | IDENTIFYING CURRICULUM OPTIONS AND OPPORTUNITIES                          |
|                        |            |                                  | 2                        | IDENTIFYING PLACEMENT OPPORTUNITIES                                       |
| 1                      | F          | P                                | 2                        | 5 YEAR PLANNING                                                           |
|                        |            |                                  | 2                        | COMPARING PROJECTIONS DATA WITH LOCAL SURVEYS                             |
| 1                      | F          | S                                | 1                        | SUPPORTING PROGRAM DECISIONS                                              |
|                        |            |                                  | 1                        | CONDUCTING INTEREST SURVEYS WITH STUDENTS                                 |
| 1                      | F          | S                                | 1                        | PLANNING BUDGETING & MIS FOR VOCATIONAL EDUCATION PROGRAMS                |
|                        |            |                                  | 1                        | PROGRAM OPERATIONS                                                        |
|                        |            |                                  | 2                        | RESEARCH & EVALUATION                                                     |
| 1                      | F          | S                                | 1                        | VOCATIONAL TECHNICAL & ADULT EDUCATION PROGRAMS                           |

Source: Research Triangle Institute, North Carolina

Key: Column 1: REASONS FOR USE: (1) Legal Mandate; (2) Written State Policy; (3) Unwritten Policy

Column 2: STATES: (U) Utah; (M) Maine; (P) Pennsylvania; (F) Florida

Column 3: IMPORTANCE LEVEL: (1) Considerable reliance; (2) Moderate Reliance

Table A.1.3. Decisions Reported, By Postsecondary Institutions in Sample States,  
To Be Informed By Occupational Projections Data

| 1     | 2                      | 3                                                                                                     |
|-------|------------------------|-------------------------------------------------------------------------------------------------------|
| STATE | TYPE OF<br>INSTITUTION | DECISION                                                                                              |
| M     | VTI                    | PROPOSED LPN TO RN ASSOCIATE DEGREE; COMPETED WITH ANOTHER VTI                                        |
| U     | TC                     | PROPOSED OFFICE SYSTEMS MANAGEMENT PROGRAM FOR CORPORATE STAFF WORKERS                                |
|       |                        | DELETED CONSTRUCTION PROGRAM                                                                          |
|       |                        | STARTED FOOD SERVICE PROGRAM                                                                          |
|       |                        | NEW FLORAL DESIGNER PROGRAM DERIVED                                                                   |
| U     | TC                     | INCREASED NUMBER OF WELDER TRAINEES                                                                   |
| U     | AVC                    | ADDED COMPUTER PROGRAM                                                                                |
| U     | AVC                    | CLOSED LUMBERYARD ATTENDANT PROGRAM                                                                   |
|       |                        | CLOSED APPLIANCE REPAIR PROGRAM                                                                       |
|       |                        | \$400K EQUIPMENT DECISION                                                                             |
| M     | VTI                    | STARTUP OF SHEET METAL & POWER ENGINEERING TECHNOLOGY JUSTIFIED BY PROJECTED OPENINGS                 |
|       |                        | PLACEMENT OF MECHANICAL DRAFTING PROGRAM GRADUATES POSSIBLE                                           |
|       |                        | HANDICAPPED ADULT CAREER SEARCHES RESULTING FROM PROJECTED OPENINGS (PURSUED ELSEWHERE), DUE TO NEEDS |
| F     | CC                     | A/C REFRIGERATION PROGRAM PHASED OUT                                                                  |

Source: Research Triangle Institute, North Carolina

Key: Column 1: STATES: (M) Maine; (U) Utah; (F) Florida;

Column 2: (VTI) Vocational Technical Institute; (TC) Technical College;  
(AVC) Area Vocational Center; (CC) Community College;

## Oregon

Oregon, which has been an acknowledged national leader in occupational information system development for more than a decade, is exploring a new model for vocational education. Building on the original cluster program concept of vocational preparation, the model attributes the need for innovative approaches to changes in job functions and tasks even in occupations whose titles remain the same. The justification for the model is that only about a quarter of Oregon's jobs presently require a baccalaureate degree and that the situation is unlikely to change radically in this decade.<sup>22</sup> In recognition of the growing number of part-time and adult postsecondary vocational students, a vocational education continuum is proposed from the presecondary level through adult life, with multiple entry and exit points.

Population and labor force data are essential to determining stocks and flows of incoming and outgoing students and the occupational directions in which particular efforts should be targeted. For example, the need for electronics technicians is projected in Oregon to grow at a rate faster than for the nation as a whole. In response to particularly specialized training requirements, for new industry or for pockets of high technology, individual postsecondary institutions must maintain the

flexibility for short-term program startups. Additional state funding is proposed for such programs. A cornerstone of the Oregon model is the recognition of the importance of labor market information from a variety of sources for vocational education planning. The criteria for program cluster definition require that attention be paid to the changing profile of Oregon industry and to the longitudinal course of individuals as they progress, or fail to progress, through the occupational structure.

## Colorado

The 1986 Comprehensive State Plan for Occupational Education in Colorado is based on an analysis of occupational projections in addition to consideration of demographics by age, sex and special needs, labor market participation, unemployment ratios by ethnic group, economic/occupational outlook, per capita income, industrial technology trends, and perceived employer needs. Although occupational projections form an important part of the scenario presented for planning purposes, it is emphasized that their imperfections are anticipated. Rather than basing arguments solely on projections, therefore, approximations are assessed as to general trends in occupational employment over the planning period, and other data sources are used to provide a more

comprehensive analysis of probable employment needs. Thus, if used thoughtfully, projections contribute significantly to planning and enhancing the current system of occupational education.

#### NOTES

<sup>1</sup>Autry, G.B. (1985). The Undereducated Adult Population and Economic Development in Kentucky (Prepared for the Commission on Vocational/Technical Education, Commonwealth of Kentucky). Chapel Hill, NC: MDC, Inc.

Bishop, J.H. Preparing youth for employment: The school's role. Facts and Findings (Research and Policy Reviews by the National Center for Research in Vocational Education), 3(18), 1-7.

Cox, J.L., Holley, J.A., and Gayle, M.E. (1986). Needs Analysis for Vocational Education Center (Prepared for Lincoln County Schools, Lincolnton, NC). Research Triangle Park, NC: Research Triangle Institute.

Cruze, A.M., Lawrence, J.E.S., Cox, J.L., Drews, D. A Study to Make Recommendations Regarding a Comprehensive State Occupational Education Program (Prepared for the Texas Education Agency), Research Triangle Park, NC: Research Triangle Institute, 1982.

McPartland, J.M., Dawkins, R.L., and Braddock, J.H., (1986). The School's Role in the Transition from Education to Work: Current Conditions and Future Prospects (Report No. 362). Baltimore, MD: Center for Social Organization for Schools, The John Hopkins University.

Parnell, D. (1986). The Neglected Majority. The Community College Press.

West Virginia State Council on Vocational Education. A View of Vocational Education from Business and Industry in West Virginia. Charleston, WV: Author.

<sup>2</sup>National Academy of Sciences, National Academy of Engineering, and Institute of Medicine. (1984). High Schools and the Changing Workplace: The Employer's View (Report of the Panel on Secondary School Education for the Changing Workplace). Washington, D.C.: National Academy Press.

<sup>3</sup>Wisconsin Department of Public Instruction. DPI Background Paper, Education for Employment. Madison, WI: Author.

<sup>4</sup>South Carolina Council on Vocational and Technical Education. (1986). A Study of Vocational Education: Report No. 5. What Employers Say About Vocational Education in South Carolina. Columbia, SC: Author.

<sup>5</sup>West Virginia State Council on Vocational Education. A View of Vocational Education from Business and Industry in West Virginia. Charleston, WV: Author.



<sup>6</sup>Cox, J.L., Holley, J.A., and Gayle, M.E. (1986). Needs Analysis for Vocational Education Center (Prepared for Lincoln County Schools, Lincolnton, NC). Research Triangle Park, NC: Research Triangle Institute.

Cruze, A.M., Lawrence, J.E.S., Cox, J.L., Drews, D. A Study to Make Recommendations Regarding a Comprehensive State Occupational Education Program (Prepared for the Texas Education Agency), Research Triangle Park, NC: Research Triangle Institute, 1982.

<sup>7</sup>Bishop, J.H. Preparing youth for employment: The school's role. Facts and Findings (Research and Policy Reviews by the National Center for Research in Vocational Education), 3(18), 1-7.

<sup>8</sup>Hull, D.M. (1985, April 25). A New Role For Vocational Education. Presentation to the National Association of State Directors of Vocational Education. Waco, TX: Center for Occupational Research and Development.

Karmin, M.W. (December 23, 1985). Jobs of the future. U.S. News and World Report, pp. 40-44.

Rosenfeld, S.A. (1983, August). The Future of Work for the High School Graduate. Prepared for the Committee on Science, Engineering and Public Policy of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

<sup>9</sup>Rosenfeld, S.A. (1983, August). The Future of Work for the High School Graduate. Prepared for the Committee on Science, Engineering and Public Policy of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

<sup>10</sup>Rosenfeld, S.A. (1983, August). The Future of Work for the High School Graduate. Prepared for the Committee on Science, Engineering and Public Policy of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

<sup>11</sup>Geyer, P.D., Lackey, L., Brannon, Y., Shearon, R.W., Cox, L., and Holley, J. (1986, May). Analysis of Declining Enrollment in Selected Vocational Programs (Prepared for North Carolina Department of Community Colleges). Raleigh, NC: Center for Urban Affairs and Community Services, North Carolina State University.

<sup>12</sup>Parnell, D. (1986). The Neglected Majority. The Community College Press.

Rosenfeld, S. (1986). Determination of Excellence in Vocational Education (A paper prepared for the Design Conference for the National Assessment of Vocational Education). Washington, D.C.: U.S. Department of Education.

<sup>13</sup>Advisory Council for Vocational Technical Education in Texas. Voc Ed Retains Funding, Undergoes Reform. ACTIVE News Volume XV No. 4, pp. 1-3, August 1984.

Research Triangle Institute. A study to make recommendations regarding a comprehensive state occupational education program. Submitted to Texas Education Agency, 1984.

Lawrence, J.E.S., Texas study develops model legislation. Vocational education. American Vocational Association. Washington, D.C. May 1983, 52-53.

<sup>14</sup>Minnesota State Advisory Council for Vocational Education. A Call to Policy. Minneapolis, Minnesota 1983.

<sup>15</sup>Cox, J. Lamarr, Holley, J.A., Davis, J.A., Lawrence, J.E.S. Study of Vocational Education in North Carolina. Research Triangle Park, NC: Research Triangle Institute, November 1986.

<sup>16</sup>Illinois State Board of Education. Education for Employment Policy Study: A Report and Recommendations. Springfield, IL: June 1983.

<sup>17</sup>Parnell, D. (1986). The Neglected Majority. The Community College Press.

<sup>18</sup>According to unpublished data from the U.S. Bureau of Labor Statistics for the first quarter of 1986, over 50 percent of all jobs in the U.S. were in establishments with less than 100 employees; over 80 percent of employing establishments in the U.S. were employing 50 or less people.

<sup>19</sup>Psacharopolous, G., Hinchliffe, K., Dougherty, C., and Hollister, R. Manpower Issues in Educational Investment. World Bank Staff Working Papers. No 624. The World Bank. Washington D.C.

<sup>20</sup>The Virgin Islands and Florida have particularly innovative occupational information systems which collect occupational data by individual employee from a sample of employers each quarter.

<sup>21</sup>Lawrence, J.E.S., and Bergman, E.M. Use of Occupational Employment Statistics Projections Data. Prepared for the Office of Economic Growth and Employment Projections. U.S. Bureau of Labor Statistics. Research Triangle Institute, North Carolina 1984.

<sup>22</sup>National data on educational attainment in the workforce, in general, support his conclusion nationwide.

Appendix A.2

EVALUATION

## Appendix A.2

### EVALUATION

---

RECOMMENDATION A.2: BESE Should Expand Its Capacity To Evaluate the Performance of Directors and Programs By Collecting Better Data and Scheduling Regular Evaluation Meetings With Directors.

---

### IMPLEMENTATION

1. BESE must establish the criteria it will use to evaluate schools and programs. These should include targets such as program costs, attendance, skills attainment, and placement rates and earnings.
  2. BESE should initiate systematic collection and analysis of data that reflect how well these goals are being met--including data on costs, student enrollment, skills attainment, and job placement. (Procedures for collecting these data are described in Appendices B.2 through B.5.)
  3. BESE should establish an office of evaluation to collect and analyze this performance data in order to assist local programs in acquiring accreditation from regional agencies and to disseminate information about model programs to local schools.
  4. BESE should conduct regular performance reviews of each director (together with his or her local board--see Appendix C.2) to assess the strengths and weaknesses of the school and to determine what steps will be taken to rectify any problems. Where performance persistently falls below established goals, BESE may suspend the payment of state formula grant payments to the school (see Appendix C.1), organize a peer review by staff from other schools, fire the director, or encourage a merger with a more successful school (subject to local board approval).
-

## BACKGROUND

Historically, postsecondary institutions in the U.S. have been regarded as relatively autonomous, locally governed, and independent. Accordingly, program evaluation has been the responsibility of the local institution. However, within recent years there has been a trend toward increasing involvement in evaluation of local programs by state agencies that have statutory responsibilities for postsecondary vocational education coordination or control. This movement is driven in large part by enactment of the Carl Perkins Vocational Education Act in conjunction with increasing concern with accountability among state legislators, who are demanding more effective use of resources and justification of high-cost programs.

Other important players also are entering the arena. In 1985, the National Governor's Association established a committee for the assessment of college quality. Additionally, trustees are claiming a larger role in evaluation. The Association of Governing Boards issued a controversial report entitled *Trustee Responsibility for Academic Affairs*, which calls for increased involvement and participation by boards of trustees in evaluating the academic effectiveness of post-secondary education.<sup>1</sup>

A survey<sup>2</sup> of state agencies responsible for community college coordination or control indicated that at least one state agency in 23 of 33 reporting states has state-level involvement in the development of criteria and/or procedures for program evaluation. The following discussion will summarize these criteria. This discussion will be followed by a brief summary of program evaluation procedures.

### CRITERIA

Criteria used for program evaluation may be categorized based on the questions the evaluation is intended to address. An inspection of the criteria used by states shows them to be addressing four major questions:

- (1) What is the need for the program?
- (2) What is the quality of the program?
- (3) What is the cost of providing the program?



(4) What are the outcomes or results of the program?

A few states also include as a program evaluation criterion "the mission of the institution." Although this currently is not a widely used criterion, its use probably will increase because of the increasing emphasis on accountability and the current scrutiny of the mission of vocational-technical educational institutions.

Measures of the need for a program consist of two types:

(1) measures of student demand for a program; and (2) measures of labor market needs. Measures of student demand include historic enrollment (e.g., enrollment over the past three or five years), minimum enrollment, availability of similar programs elsewhere in the state, and number of graduates. States using at least one of these measures in their criteria include Arkansas, Delaware, Hawaii, Illinois, Kentucky, Maryland, Minnesota, Mississippi, New York, Ohio, and Virginia. Measures of labor market need and states using such measures are discussed in Appendix A.1.

Measures of program quality include student/teacher ratio, faculty qualifications, adequacy of facilities and equipment, and student and/or teacher satisfaction with programs. States using at least one of these measures in their criteria include Illinois, Kansas, Mississippi, New York, North Carolina, Ohio, Oklahoma, and West Virginia.

Measures of the cost of providing a program include "program cost in top 25 percent of the most costly," programs requiring additional large expenditures, costs, and cost-benefit. States using at least one of these measures in their criteria include Arkansas, Delaware, Maryland, Minnesota, and West Virginia.

Measures of program outcomes or results include job placement, salary level of graduates, and "minimum of 70 percent job placement in each career program." States using at least one of these measures in their criteria include Maryland, Minnesota, West Virginia, and New Hampshire.

States tend to use multiple measures of program effectiveness; that is, no state uses only one of the measures just discussed. However, in some cases, a state may use several measures that address

only one of the four previously mentioned criteria. There appears to be little systematic selection of measures in relationship to these criteria; rather, program evaluation appears to have evolved.

Early self studies focused on the quality of the program. A few years ago, measures of student demand were added because decline in the student age population meant that growth was no longer a constant. Today, new pressures are shaping vocational-technical program evaluation. With enactment of the Carl Perkins Vocational Education Act, Federal funds no longer can be used for maintenance of programs. In conjunction with this, as previously mentioned, state legislators are increasingly concerned with accountability. And, finally, there is a strong and growing trend toward linking vocational-technical education with economic development. To adequately respond, program evaluation is rapidly moving in the direction of outcome measures. Are graduates getting jobs? Are their jobs in their area of training? Are they making more money than if they had not gone through these programs? Are unemployment rates low? Is skilled labor available to attract desirable new employers to the state?

#### PROCEDURES

In the past, the primary procedure used for program evaluation was self studies conducted by the local institutions. These studies are increasingly being conducted following evaluation guidelines developed at the state level. Evaluation teams are frequently used, often in conjunction with self studies. Again, these teams increasingly include representatives of state agencies with responsibility for vocational-technical program coordination or control. Further, the linkage of vocational-technical education and economic development has led to expanding use of business and industry leaders on program evaluation teams.

In outlining their evaluation procedures, many states have included a frequency guideline. Many states indicate that 20 percent of the programs are to be reviewed every year. This assures that every program is evaluated every five years. Other states, such as New Hampshire, have levels of review; that is, all programs are reviewed on a limited set of critical factors each year, and those with "flags" on

the critical factors are candidates for more intensive reviews the following year.

#### EXAMPLES

To provide a more detailed account of vocational-technical education program evaluation, three states (New Hampshire, Florida, and Oklahoma) were selected for further examination.

##### New Hampshire

The Department of Postsecondary Vocational-Technical Education is well known for its annual summary report of the successes of its graduates. For every occupational program at each institution, the number of graduates in each of the following categories is reported: employed, continuing education, seeking employment, not seeking employment, and status unknown. Further, reported for each institution are the percent employed in their major field, the percent employed in a related field, and the percent employed in a different field.

Because the legislature of New Hampshire established the vocational-technical system as a means for developing skilled workers and technicians as resources to improve and bolster the state's economy, the report shows the percent of graduates working in New Hampshire and the percent living in New Hampshire but commuting to work out-of-state. The report also gives the annual salary for graduates employed fulltime based upon reported salaries. This information is presented by program.

Finally, the report lists employers who hired graduates. New Hampshire also has state-level criteria for determining whether a program will continue. If for two consecutive years there is less than 80 percent capacity enrollment or if less than 45 percent of the entering freshmen fail to graduate, the program is to be terminated. However, these criteria are being reviewed because system personnel have found that the decision to terminate a program involves many complex factors not covered by the criteria.

##### Florida

The State Board of Community Colleges (SBCC) is required by law to conduct periodic reviews of community college instructional programs designated as degree programs, vocational certificate programs, preparatory instruction programs, and citizenship instruction programs. The program review process contains three major phases referred to as "levels." Level I is the annual production by the SBCC of a data display table pertinent to each instruction program approved by boards of

trustees. This data display table is prepared from placement and graduate followup reports and additional information supplied by the community colleges. There are 10 defined statistical program performance measures in six categories. The six categories are enrollment, completion rate, placement rate, FTE (within 20 percent of prior two-year average), cost, and student/faculty ratio. Deviations from the defined parameters for the measures are automatically signaled by an "x" or flag in the data display table.

The flags may suggest programs that need further review. The data display tables are sent for analysis to the community colleges, which use the data display tables and other information (such as licensure passing rates and equity information) to identify vocational programs to be reviewed in Level II.

Level II is the review by the community colleges of selected programs suggested by Level I data display tables and other information. The community colleges conduct the reviews to determine needed management changes (including program enhancement or termination) using whatever review process best fits the local college situation.

Level III is the statewide review by the SBCC of selected program issues suggested by Levels I and II review findings, legislative interest, and other information. The reviews are issue oriented, addressing the need for state policy changes and/or funding priorities. The process for each Level III review is custom designed to yield documented recommendations related to the issues and problems.

#### Oklahoma

The Oklahoma State Regents for Higher Education, which is the coordinating board of control of The Oklahoma State System of Higher Education, has constitutional responsibility for prescribing standards of education and approving educational programs at postsecondary institutions offering programs and granting degrees or other academic awards in the state of Oklahoma. A summary of the criteria and procedures set forth by the State Regents to assess the adequacy and quality of existing programs of technical-occupation education at Oklahoma postsecondary institutions follows.

The criteria and procedures provide for an external evaluation for every program at least once every five years and for "ongoing and continuous review and evaluation of all technical-occupational programs" by local institutions. The external evaluation is conducted by a visiting committee composed of knowledgeable educators selected from sister institutions within the state, recognized consultants from

the specialized areas to be evaluated, and members of the State Regents' staff with program responsibilities.

As part of this evaluation procedure, institutions are asked to provide a self-study report approximately four months prior to the evaluation visit. Ten broadly stated criteria are used by the evaluation team. For example, the criterion for budgeting and expenditures states: "Institutions shall be expected to budget and expend in each technical-occupational program an amount of funds calculated to develop and maintain program viability. It is recommended that expenditure records be maintained for purposes of both internal and external comparison with like-type programs." Of special interest is that one criterion addresses the nature of the "ongoing and continuous review and evaluation" conducted by local institutions. It states that these reviews and evaluations are to include "review and assessment of students, faculty, curriculum, facilities and equipment, funding, job-placement, and the like. Such self-evaluation should be carried out within the framework of the goals and objectives established for each educational program. It is suggested that each speciality area be reviewed at least once every five years by a recognized consultant in the field or by a competent peer group."



NOTES

<sup>1</sup>Blasi, J.F. and Davis, B.S. (1986-87). Outcomes evaluation a model for the future, Community College Review, 14(2).

<sup>2</sup>R.W. and Bender, L.W. (July, 1976). The State Role in Program Evaluation of Community Colleges: Emerging Concepts and Trends, Tallahassee, Florida: Florida State University.

Appendix A.3

AUDIT

## Appendix A.3

### AUDIT

---

RECOMMENDATION A.3: BESE Should Organize and Strengthen Its Audit and Compliance Capacities.

---

### IMPLEMENTATION

1. In order to create a more responsive and responsible vo-tech system, the level of prior approval must be reduced by granting directors greater discretion (see Appendix B.1). This will require a greater investment in the evaluation of schools to determine how well they are performing (see Appendix A.2) and stronger audit to determine that schools are complying with regulations and with the law.
  2. At present, auditors have little relevant information provided regularly by schools, BESE has too few staff to make an audit an effective management instrument, and audit responsibility is shared among several different agencies. Each of these deficiencies must be remedied. Primary audit responsibilities should reside within the State Department of Education.
  3. The information systems described in Appendices B.2 through B.5 would provide auditors with summary data that would enable them to focus their efforts more effectively.
  4. The unification of BESE and the Department of Education, and the reduction in staff effort devoted to the problems of individual schools should place this agency in a better position to monitor schools.
-

## BACKGROUND

Enrollment data should be standardized, using Social Security numbers as identifiers, and compiled on a simple computerized system. BESE should develop a simple software package that would allow each school to provide quarterly data. For each student, the following data should be collected:

- . Social Security Number; Name; Address; Birthday
- . School Code
- . Handicapping Conditions, Ethnic Group
- . Tuition paid
- . Student aid received
- . Program enrolled in
- . Admission test scores and educational attainment (see B.3 below)
- . Attendance
- . Competency test results (on completion--see B.4 below)
- . Followup survey

These data would be on floppy discs (using software developed by BESE) and would be submitted quarterly to office of evaluation, where it would be used to determine the allocation of funds through a formula based on enrollment (see following section). Since these data are so important, they would be audited by BESE. In addition, individual schools may collect information relevant to their particular programs.

Appendix A.4

DELEGATION



## Appendix A.4

### DELEGATION

---

RECOMMENDATION A.4: BESE (and the Division of Administration) Should Delegate Day-to-Day Administration of Programs and Schools To Directors and the Proposed Local Vo-Tech Boards.

---

### IMPLEMENTATION

1. All decisions regarding expenditures below \$50,000, hiring and firing, salaries (other than the position of director), and programs to offer should be at the discretion of the director. The director would also gain greater discretion because funds flowing through the allocation formula (see Appendix C.1) would not be earmarked to particular expenditure categories.
  2. Local boards would approve budgets and major management decisions, and minutes would be reviewed (but not approved) by BESE staff to identify potential problems.
  3. Through the administration of competency tests and the analysis of other evaluative data (see Appendices B.2, B.3, and B.4), BESE would monitor the performance of schools, but not attempt to administer them.
  4. BESE should develop a list of eligible activities for which formula funds and self-generated funds can be used and a short list of decisions that require BESE approval.
-

## BACKGROUND

Decisions are best made by those with the strongest involvement in a successful outcome and with the best information about how to achieve goals. Centralized decision making deters experimentation and adaptation. When BESE decides what curricula may be offered in a vo-tech school, the director and his staff may be constrained in how they can respond to the demands of local employers and can be less responsive to the particular needs of their students. Decentralized decision making is likely to lead to better performance if managers are held accountable for how well they do.

Policy makers often try to guarantee good performance by prescribing in great detail how local entities are to perform their tasks. For example, under the Comprehensive Employment and Training Act, local agencies were compelled to obey an ever-increasing volume of regulations and field memoranda that specified, among other things, the skills that eligible recipients could be taught in such detail that apparel workers were told the types of garments and even what seams they could sew. Under the present system of vo-tech governance in Louisiana, the prior approval of almost all decisions relating to expenditures, staffing, and even training has left little room for local initiative.

If BESE, the Division of Administration, or the Department of Education knew better than local schools what skills would be demanded in the future, how to teach those skills, and how to market graduates to local firms, centralized management of the training program would be desirable. But, it is rare that a central unit has better information than local units on all these program characteristics, since the central unit usually lacks data on local labor markets, the strengths and weaknesses of staff, and the local population to be trained.

BESE will have better information than local offices in some areas; for example, about how well last year's graduates fared in the job market or about ideas being tried in other communities or in other states. It can perform a valuable function compiling and disseminating

this type of data, but coordinating this flow of information is not the same as centralized decision making.

Excessive centralization of decision making is vulnerable to two problems that decentralized decision making can avoid. First, when an error is made, it permeates the entire system. For example, if the head office erroneously forecasts future skills demands, then every local office will be under orders to repeat that error. If local offices made their own predictions, it is unlikely that all would be wrong together (or that they would all be right together).

Second, centralized decision making deters innovation. Innovation often arises as a result of competition among decentralized units for resources. Local offices will experiment with different ways of training, with teaching new skills, and with new placement techniques in the hope of capturing a larger share of the funds allocated by the head office. Successful innovations will be emulated if the system allows for the exchange of information. Through innovation and emulation, the system adapts to its changing environment and improves over time. A centralized system will allow less experimentation and hence will adapt less effectively.

In the course of decentralized innovation, local offices make decisions that are apparently incompatible--(e.g., picking different skills or different approaches to training). But these differences do not point to the need for centralized coordination. We only know which approaches were correct with the advantages of hindsight. It is very difficult to select in advance the best approach for a particular locale. The results of decentralizing decision making in Louisiana's vo-tech system might include:

- . A vo-tech school in a distressed part of the State contracting with a placement agency in a distant region with a strong economy to place its graduates.
- . A vo-tech school closing a program because enrollment is too small and contracting with a neighboring institution to teach students who still want courses in the abandoned skill area (at less than it would have cost to teach them on campus).
- . Aggressive marketing by schools to businesses within and outside their community (advertising would feature placement rates and special facilities).

- . A school developing a new program that successfully trains people with a special learning disability and arranging with other schools in the state to offer the program on their campuses.

These are all signs of vo-tech behaving more entrepreneurially--constantly innovating with new products, new teaching methods, and discovering new markets. The ultimate determination of what innovations succeed is left, in large part, to the users of the system: the students and employers. Institutions would operate competitively both in the market for students and in the market for selling training services.

The more entrepreneurial schools--often those that have confronted declining enrollment and a slack local labor market--will respond to the challenge. Many will find the prospect of having to compete in order to grow or even to survive untenable. However, a successful vo-tech system will never enjoy uniformly excellent performance from all its programs or from all the schools, colleges, and agencies carrying out training programs. There is no legislation, no matter how comprehensive and how well designed, that can guarantee uniform success; nor can it guarantee that new ideas are introduced and adopted rapidly.

Appendix A.5  
ARTICULATION

## Appendix A.5

### ARTICULATION

---

RECOMMENDATION A.5: BESE Should Develop Cooperative Programs With Other Agencies.

---

### IMPLEMENTATION

1. High Schools. A program should be developed that allows wide participation by high school students in postsecondary vo-tech programs.
  2. Human Service Agencies. Welfare recipients should be better informed about vo-tech programs and student assistance. Welfare programs should not discourage participation in training and should offer support services such as daycare, transportation, and financial assistance.
  3. Employment Service. The unemployed should be better informed about their ability to participate in training programs and about access to financial support.
  4. Prisons. Prison adult education programs throughout the State should be administered, managed, budgeted, and evaluated as a separate educational unit.
  5. Curriculum Lab. The Vocational Curriculum Development and Research Center should be administratively removed from Region 7 and should report directly to the Trade and Industrial Education section of the Office of Vocational Education within the State Department of Education.
-



## BACKGROUND

Cooperation among state agencies responsible for education is receiving increasing attention from legislators, educators, and researchers. Recently, attention has focused on two major areas of cooperation. One area is articulation, which is the coordination of education between secondary and postsecondary educational institutions to eliminate unnecessary duplication and to streamline the educational process. This attention is being compelled by growing pressures for education to become more responsive to students' and employers' needs and increasing demands for more effective use of resources.

The second area is coordination among state agencies with statutory responsibilities for delivery of vocational-technical education and training. This emphasis is being driven by growing awareness that more effective use of resources may be achieved by coordination of vocational-technical education in public education institutions with other related services, such as training administered under the Job Training Partnership Act. This has led to recognition of the need for coordination among all state agencies with statutory responsibilities for vocational-technical education, including, for example, the departments of corrections and social services. This background analysis will address the major areas of cooperation in the delivery of vocational-technical education relevant to Louisiana.

### NATIONAL PERSPECTIVES ON ARTICULATION

The need for education to become more responsive to students' and employers' needs comes in large part from the growing recognition that the current education system is failing to meet the needs of large numbers of students and, in turn, the needs of employers. Approximately 25 percent of the students entering the ninth grade do not graduate. Of those that do graduate from high school, only approximately 25 percent enter a four-year college or university. Of these, only 25 percent actually graduate.

With growing recognition that large numbers of students are failing to receive baccalaureate degrees, the current education system is increasingly being scrutinized and evaluated. Educators,

legislators, and employers are questioning whether excellence in education means that all students can and should prepare for a baccalaureate degree program. They are beginning to recognize the needs of the mass of students who do not follow the baccalaureate track. Unfortunately, current educational reforms are not likely to meet the needs of these students. Dale Parnell<sup>1</sup> calls such students the "neglected majority."

Current reforms at the secondary level tend to increase the number of credits required for graduation and to demand higher grades in basic academic subjects. In many cases, the emphasis is on computers, advanced math, foreign languages, and science. Students who have had few positive experiences in elementary and middle school are unlikely to respond positively to these reforms. Without additional reforms designed to address these students, they are likely to remain underprepared for employment or postsecondary education. Expanding awareness of this problem in conjunction with the increasing emphasis on the link between education and economic development has led to the growing demand that education increase its responsiveness to the needs of these students and their potential employers.

Articulation between secondary and postsecondary systems and institutions helps accomplish responsiveness by eliminating unnecessary duplication and repetition of instruction. The educational process is streamlined so that students are less likely to drop out of high school. Further, participating high school students may find that they already have sufficient postsecondary credit to encourage them to continue and obtain a postsecondary certificate or degree. Similarly, where articulation among postsecondary institutions is effective, students are highly encouraged to obtain certificates/degrees. Some of the most advanced articulation models, such as the 2+2+2 programs, make optimal use of these phenomena to link two years of secondary with two years of postsecondary vocational-technical education followed by two years of university or college.

The increasing demands for more effective use of resources are driven by shrinking budgets. Revisions in the Federal vocational education act redirected and limited funding. Implementations of basic

education programs are demanding large funding bases. Given the resulting scarcity of resources, program duplication among institutions within the same geographic area has become a luxury. Equally important, repetition in learning also has become a luxury. States can no longer afford to expend resources to support requiring a student to take a course that covers academic competencies and skills that the student has already learned elsewhere. Further, as jobs are becoming more technically demanding, both secondary and postsecondary institutions are realizing that neither can adequately equip students for employment in the limited time covered by their programs. The need for articulation across institutions is rapidly becoming imperative.

Current interest in articulation focuses on two areas:

- (1) articulation among secondary and postsecondary institutions; and
- (2) articulation among postsecondary institutions, such as vocational-technical institutes, community colleges, junior colleges, and four-year colleges and universities. This latter type of articulation is not a new phenomenon, since a transfer function was integral to the establishment of community and junior colleges. However, these transfer agreements have developed somewhat haphazardly. Consequently, educators, legislators, and researchers are beginning to call for systematic assessment and determination of effective articulation agreements.

Articulation between secondary and postsecondary institutions is a relatively new phenomenon that has captured widespread interest. From its beginning, this area has been approached in a systematic way. Educators and researchers are identifying and testing models of articulation. The results are being closely followed and widely disseminated. However, progress is not as rapid as might be anticipated. Overcoming barriers to secondary/postsecondary articulation is a formidable task. The remainder of this paper discusses models and examples of secondary/postsecondary articulation and articulation among postsecondary institutions.

#### Secondary-Postsecondary Articulation

Nationally, three basic models of secondary/postsecondary vocational-technical articulation are currently being used: advanced

placement, tech-prep, and vo-tech two-plus-two. Advanced placement programs provide postsecondary credit (i.e., advanced placement) for courses completed during high school. The courses may be taught by high school teachers or by postsecondary instructors. Postsecondary credits may be awarded directly without testing the students, or the postsecondary institute may test the student prior to awarding credit. Advanced placement programs are currently the most common type of program coordination effort.<sup>2</sup>

Tech-prep programs are the vocational-technical counterpart to college-prep programs. They articulate secondary/postsecondary offerings through examination of occupational areas or clusters of occupations to identify academic and pretechnical foundations necessary for success at the postsecondary level. Two years of a core preparatory curriculum in high school is linked to a cluster of technical programs at the postsecondary level. If necessary, the postsecondary curricula are revised to fit the strong secondary foundation.

Vo-tech two-plus-two programs are based on joint curriculum development and assessment. Competencies gained during high school receive joint credit (or advanced placement) in an appropriate vocational-technical program at the postsecondary level. Facilities, faculty, counselors, and placement officers may be shared by the cooperating institutions. Usually students may exit the program after grades 12, 13, or 14 with a diploma, certificate, or associate degree.

#### Articulation Among Postsecondary Institutions

Articulation agreements among postsecondary institutions have generally taken three forms: (1) documents in the form of equivalency guides issued by institutions; (2) agreements negotiated by individual colleges and universities or by segments within a state; and (3) guidelines and policies developed and controlled by state agencies or commissions.<sup>3</sup>

Recently, some of these agreements have been challenged because they do not assure that transfer students will have the competencies requisite for academic success. Palmer<sup>4</sup> has pointed out the urgency of this issue in light of recent evidence that community college studies

may not be sufficiently rigorous. For example, there is evidence<sup>5</sup> that community college instructors "teach down" to the level of their students, thus doing little to raise the reading, writing, and mathematical competencies of the large number of underprepared entering students. Attention is now shifting to determination of whether transfer students have the skills and academic competencies needed for success at the new institution.

### Examples

To provide a more detailed examination of the current status of articulation, programs in five states will be summarized. These states are Florida, North Carolina, Georgia, Oregon, Pennsylvania, and Wisconsin.

### Florida

Florida was the first state to develop and implement a statewide transfer agreement on general education<sup>6</sup> requirements among its postsecondary institutions. More recently it has established a statewide system of dual credit to facilitate secondary/postsecondary articulation.

Steps to insure articulation among Florida's postsecondary institutions were begun in 1965 when the Florida State Board of Education approved an articulation agreement that guaranteed the acceptance of community college transfers at the junior level by the public state universities in Florida. In 1971, an Articulation Coordinating Committee was established. It is composed of three representatives from the community college system and three from the state university system. A University-Community College Relations Officer was designated in each of the nine supported universities. The College Relations Officers play a major role in making the articulation process work on a daily basis by coordinating internally and externally the institution's articulation activities.

To facilitate secondary/postsecondary articulation, the Florida State Legislature established a variety of articulated acceleration mechanisms for secondary and postsecondary students attending public education institutions. It is intended that articulated acceleration serve to shorten the time necessary for a student to complete the requirements associated with a degree, broaden the scope of curricular options available to students, or increase the depth of study available for a particular subject. Articulation acceleration mechanisms include, but are not limited to, dual enrollment, early admission, advanced



placement, credit by examination, and the International Baccalaureate Program. In the International Baccalaureate Program, eligible secondary students are enrolled in a program of studies administered by the International Baccalaureate Office.

Florida permits students enrolled in community college or university dual enrollment instruction to be included in calculations of fulltime equivalent student memberships for basic programs for grades nine through 12 by a district school board. Such students may also be calculated as the proportional share of fulltime equivalent enrollments they generate for the community college or university conducting the dual enrollment instruction. Students enrolled in dual enrollment programs are exempt from the payment of registration, matriculation, and laboratory fees.

The state laws of Florida also make each district superintendent of schools and each community college president responsible for the development and implementation of a comprehensive, articulated acceleration program and formal agreement for the students enrolled in their respective school districts and service areas. Components of the agreement are covered in state statutes.

During the 1985-86 academic year, 253 public secondary schools with a total school enrollment of 373,439 had 6,636 students (1.78 percent) enrolled in dual credit courses. The previous year, 1984-85, a total of 207 public secondary schools with a total school enrollment of 284,635 had 4,223 students (1.48 percent) enrolled in dual credit courses. In 1984-85, dual credit enrollment ranged from one student at Florida Keys Community College to 600 students at St. Petersburg Junior College. In 1985-86, enrollment ranged from 13 students at Florida Keys Community College to 842 at St. Petersburg Junior College.

Of the dual credit high school students, 28.6 percent earned an A. Of the other students in the same courses, 18.5 percent earned an A. Of the dual credit high school students, 15 percent did not pass. Of the other students in the same courses, 30.9 percent did not pass.

Of the 4,116 course sections offered to dual credit students, 337 were taught by high school teachers and 3,779 were taught by college faculty. A total of 423 course sections were taught at high school facilities, 3,311 were taught at community college facilities, and 382 were taught at other facilities in the community. Dual credit students attempted 38,841 college credits and earned 33,039.



### North Carolina

North Carolina is currently developing secondary/post-secondary articulation on two fronts: dual enrollment and tech-prep programs. The state legislature recently enacted a law that permits dual enrollment of students in secondary and postsecondary institutions. As in Florida, both institutions receive funding credit for these students. Since the law is so new, little implementation has taken place.

North Carolina is currently developing tech-prep programs for four clusters: Business Technology, Allied Health Technology, Advanced and Engineering Technology, and Agriculture and Natural Resources Technology. For each of these clusters, a committee composed of staff from the Department of Community Colleges and the Department of Public Instruction is designing a model high school curriculum covering the preparatory coursework in foundation areas. In addition, each committee is to summarize the rationale for the curriculum design, indicate where within the state programs the clusters are located, and identify likely sites for piloting the programs.

The Charlotte/Mecklenburg School System has competency-based articulation agreements for certain vocational-technical education programs with Central Piedmont Community College. The purpose of these agreements is to make it possible for a student to make a transition from high school to the community college without having to repeat competencies already achieved. In the Hotel/Restaurant Management program, for example, 71 competencies (e.g., complete credit terms on orders and invoices) have been identified in 10 areas (e.g., Math for the Hospitality Industry). Successful completion at proficiency level two or higher of these competencies entitles a student to credit for block(s) of instruction listed as "HRM 3300 Introduction to Hotel/Restaurant Management" at the community college. This credit fully applies as partial fulfillment of graduation requirements for the Hotel/Restaurant Management Degree Program at the college. Proficiency level two is one of three possible proficiency levels and is defined as "minimally acceptable level of skill; can perform with supervision and/or assistance."

For articulation among postsecondary institutions, agreements are negotiated between individual institutions.

### Georgia

In Georgia, the Governor's Education Review Committee is making recommendations regarding a statewide plan to enhance

linkages between secondary and postsecondary vocational education.<sup>8</sup> At present, vocational program objectives vary so much from system to system that students moving to a new school often find themselves either lacking prerequisite knowledge or repeating topics in their vocational courses. Similarly, high school vocational graduates entering postsecondary programs typically enter the program at the same point as persons without previous training. Model linkage programs exist in several postsecondary technical schools, but because of the lack of statewide curricular comparability in secondary vocational programs, they apply only to graduates of certain local high schools. The linkage recommendations will allow students to move between school systems or to postsecondary schools in an orderly fashion, resulting in improvements in efficiency that will benefit Georgia's youth, as well as taxpayers. The recommendations include steps to:

- . Establish a broad-based team of educators and business persons to develop a statewide plan for each vocational program that provides for:
  - Orderly transfer of students from secondary to postsecondary programs.
  - Joint enrollment options.
  - Orderly student transfer from programs in one local system to another.
- . Base plans on job-skill competencies and related academic competencies.
- . Use students' vocational program competency assessments as a vehicle for initial placement in postsecondary programs.

#### Oregon

A partnership is being formed between selected high school districts and Chemeketa Community College to design and implement an articulated Associate Degree Technical Program in Office Occupations Technology, Manufacturing Engineering Technology, and Automotive Technology. Skills needed by students at entry, at the point of transfer to the community college, and at exit (completion of the associate degree) are being identified. Curricula are being designed to provide students with the identified skills. Three of the major objectives of the program are reduction of the high school dropout rate, increased retention of community college students, and elimination of unnecessary duplication and repetition of instruction.

Some notable features of the program are that: (1) it allows students to exit at the end of any year with identified competency certificates; (2) students receive credit for high school graduation for applied basic skills courses in math, science, reading, and writing; and (3) curriculum results also may be 2+2+2, ending with a baccalaureate degree.

#### Pennsylvania

The Williamsport Area Community College<sup>9</sup> has in place several two-plus-two technical preparation programs where the last two years of a high school student's education are joined to the first two years of college education in a well-organized, uninterrupted track.

The college has secondary vocational programs that serve 13 participating school districts, which pay the total costs for the programs. The college operates 15 different programs that are designed to permit dual enrollment during the junior and senior years of high school. With 750 students, this is the most popular option. High school juniors come to the college for vocational training during their second and fourth quarters. They remain at their home schools for the first and third quarters to complete their basic educational requirements. The schedule is reversed during their senior year.

A special-options program is available to high school seniors in five areas: agribusiness, computer information systems, computer operations, dairy herd management, and electronics technology. These students enter postsecondary classes with traditional college students, taking the same courses and meeting the first-year requirements of a two-year associate degree or certificate. This integrated model allows dual high school and college credit so that enrollees also complete their requirements for a high school diploma by the conclusion of the program. The special-options programs were established where the numbers of potential students remained below a cost-effective level for initiating separate classes in the high schools. This program is also ideal for academically advanced students who wish to begin college studies early and later transfer to a baccalaureate degree-granting institution.

The college also offers advanced placement credit based on courses taken at the college, student competency profiles developed by the secondary instructor and evaluated by postsecondary faculty, and a skills testing program.

#### Wisconsin

Wisconsin has developed a formal agreement to encourage voluntary articulation and coordination between the

University of Wisconsin System and the Wisconsin Board of Vocational, Technical, and Adult Education. It has a second formal agreement to encourage voluntary articulation and coordination between the Wisconsin Board of Vocational, Technical, and Adult Education and the State Department of Public Instruction. Both formal agreements establish advisory committees to provide the vehicles for dialogue between the respective systems.

The joint statement on inter-system articulation between the university and postsecondary vocational-technical education system indicates that the objectives of articulation and coordination are to avoid unnecessary duplication in programming, encourage maximum educational opportunity, maximize areas of cooperation between the systems, and help achieve the best overall use of facilities in both systems. Three joint administrative committees were established to help reach these objectives: the Joint Administrative Committee on Academic Programs, the Joint Administrative Committee on Continuing Education, and the Joint Administrative Committee on Physical Facilities.

To effect formal communication between the postsecondary/secondary systems, 16 regional committees and one state committee were established. Each is composed of representatives from the two systems. The basic charge for the committees is to improve interagency relationships at the administrative levels. Ten areas of common concern are listed. Examples of these concerns are alternative educational delivery strategies and partnerships with business and industry.

#### NATIONAL PERSPECTIVES ON COORDINATION

Although public secondary and postsecondary institutions remain the major providers of vocational-technical education, many other agencies also provide such services. Within any given state, these agencies include, but are not limited to, the Department of Corrections, the Department of Social Services (particularly the Divisions of Youth Services and Vocational Rehabilitation), and the Department of Labor. Further, within each state, one state government department usually is designated the lead agency for administration of the Job Training Partnership Act.

With this wide dispersion of the responsibility for provision of vocational-technical education, state administrative leaders (e.g., governors, legislators, and education administrators) are beginning to call for systematic coordination of effort among the agencies in order

to avoid duplication of services and to increase efficiency in the use of resources.

For a number of years, coordination has occurred to varying degrees among these agencies. For example, in many states, community colleges and corrections departments have cooperatively provided vocational-technical education to inmates. However, the need is being recognized for formal, comprehensive plans that address the growing complexity of vocational-technical education delivery.

As educators in Colorado have correctly pointed out,<sup>10</sup> plans for all of the vocational-technical programs being provided by the numerous agencies contain common elements such as population descriptions, labor market information, coordination activities, and definitions of local priorities. Further, to varying degrees, each of these plans also relates to specific services to be provided to disadvantaged and handicapped as well as other targeted populations. Separate preparation of these plans requires a high level of redundancy of effort.

Currently, at the local level, only the Private Industry Councils/Service Delivery Areas (PIC/SDAs) that are part of the Job Training Partnership Act organizational structure typically are required to coordinate planning and service delivery and to have written coordination agreements with some other agencies, such as local providers of postsecondary education. However, this is beginning to change in some states, where comprehensive, formal coordination agreements are being worked out among all service delivery agencies.

#### Examples

As examples, the work being done in two states, Colorado and Texas, will be summarized.

#### Texas

In January 1987, the Texas State Board of Education adopted a regional plan for coordinating state vocational education and training. Statewide, there are 16 agencies and 32 boards or commissions charged with occupational skills training. It is recognized that services delivered by these entities often are duplicative, yet training needs continue to exist in many



areas of the state.<sup>11</sup> Agencies with the broadest charge for occupational training are: Texas Educational Agency, Coordinating Board, Texas Department of Corrections, Texas Rehabilitation Commission, Texas Department of Mental Health and Mental Retardation, Texas Youth Council, Texas Department of Community Affairs, and the Department of Human Services.

Regional planning was adopted as a means of coordinating the activities of these entities. Each school district, community college, or other training entity will no longer develop and offer programs in isolation. The programs offered will be determined on a regional basis.

Regional priorities are to be established based on unique employment characteristics of the region, but generally are expected to follow statewide trends. The regional planning configuration will design and develop delivery systems that match training needs with training deliverers. In some cases, the needs may be at the secondary level, whereas the deliverer may be a postsecondary institution. In other cases, the need may be in one school district, whereas the deliverer is another district. In cases where no delivery system exists for skill training in a particular occupation within the region, there may be a need to assign training responsibility for that occupation to an existing training deliverer. This process is seen as suggesting the need for an area vocational school system where designated schools or community colleges provide training for entities within a general area.

#### Colorado

In mid-1985, the Colorado State Board for Community Colleges and Occupational Education began work on a comprehensive state plan for occupational education. In January 1986, a Human Services Planning Workshop was attended by 162 representatives from Job Service Centers, the Division of Rehabilitation, Service Delivery Areas, Community Colleges, Area Vocational Schools, Secondary Schools, the Colorado Department of Labor and Employment, the Governor's Job Training Office, and the State Board for Community Colleges and Occupational Education. The objectives of the workshop were twofold: to identify current planning processes used by the participating agencies and to develop alternative planning options. As a result of this workshop, it was recommended that a single statewide planning group (i.e., the Planning Task Force) be established, composed of local rural and urban representatives of the five agencies most closely involved in local employment and training planning.

The Planning Task Force worked on recommendations and suggestions for the following: modifications and changes in the planning process, including options for a single local



human services plan; timeframes; and uniform guidelines, including the issuance and review process. This coordination effort was reinforced in the spring of 1986 when the state legislature included requirements for a Comprehensive State Plan in H.B.1237. After the Planning Task Force completed its initial recommendations for the Comprehensive State Plan, public forums were held throughout the state. The final plan has been completed and is being implemented.

#### TRAINING WELFARE RECIPIENTS

Income maintenance programs discourage clients from enrolling in training programs by cutting or eliminating benefits and by not informing poor people of the opportunities available to them. Recipients may be required to search for work and take the first job for which they are qualified, even if it pays only minimum wage and is likely to be temporary. The 1981 Omnibus Budget Reconciliation Act requires AFDC recipients with young children to be at home except for "very brief and infrequent absences;" those with older children are required to register for work and accept any offer. Some states limit allowable training to a limited period of time (92 days in one state; one or two years of college in others). However, long-term programs are far more effective than short-term ones.

Neither recipients nor caseworkers can assess educational needs or know about education and training opportunities such as financial aid, quality, and benefits, nor how to pursue them and how they might affect eligibility for continued benefits (even though 13 percent of AFDC recipients, 19 percent of General Assistance recipients, and 40 percent of the unemployed have some college experience). Educational systems, for their part, have little contact with the transfer payment system and its clients, potential clients, and practices. Margaret Dunkle notes:

Traditional ways of disseminating information are inadequate to reach AFDC recipients. These women are unlikely to have informed parents or access to high school guidance counselors to guide them through the maze of federal and state programs and forms. They may think that they are not eligible for aid because they are too old. They may think that they are ineligible for aid because they go to school part-time. They may be intimidated by the apparent, and indeed, real complexity of the application process, the various sources of aid, and the forms that must be completed.

This gap can be bridged by a comprehensive intake, assessment, and opportunities information system for AFDC recipients, such as that offered by the Massachusetts ET Choices program. Such an information system individually assesses clients' educational needs and desires, identifies options (including but not limited to education and training), and helps clients develop self-sufficiency plans. This not only helps clients enroll in education and training, but discourages those for whom other courses of action are more promising.

Other ways of overcoming barriers include the preparation and dissemination of publications describing training and education opportunities (including quality evaluations), sources of financial aid, and procedures for obtaining aid (including a master calendar for applications). A wide audience can be reached through mass media, as Massachusetts has done. Wisconsin and California have held joint meetings between education and public assistance authorities. Seed money for innovative outreach and information efforts can be provided on a competitive basis. Maine has successfully opened educational opportunities to AFDC recipients and established economic development and employment linkages with its public assistance programs. A new voluntary program--Helping Ourselves Means Education (HOME)--in Washington State has already advised 11,000 welfare recipients on the intricacies of going to college while on welfare.

Ensuring that low-income people can afford to pursue education and training programs requires: (1) measures that ensure they do not lose their eligibility by virtue of enrolling; and (2) supplementary financial assistance to pay both direct and indirect expenses.

#### Maintaining Eligibility for Benefits

AFDC recipients enrolling in education or training courses may not be able to afford books, supplies, equipment, transportation, and child care, on top of tuition and fees. Although the law states that "expenses reasonably incurred for child care" are part of the cost of college attendance when computing grant eligibility, neither regulations nor practice reflect this.

In addition, state social service agencies may count grant, scholarship, and loan assistance from state, institutional, and private

sources as income if they are used for other than tuition and reduce welfare benefit levels correspondingly. An AFDC family with a member enrolled in college is likely to have benefits reduced even if the student receives only enough aid to cover direct and indirect educational expenses. The entire amount of student loans is counted as cash income for the purpose of determining Food Stamp allotments, so that AFDC recipients who return to school lose most or all food stamps.

BESE should develop a three-step program in conjunction with the Department of Health and Human Resources to ease these difficulties:

1. Make enrollment in long-term as well as short-term education or training programs an eligible activity for a recipient by revising "readiness to work" and the "brief and infrequent absences" rules.
2. Maintain benefits while the recipient is undergoing training or education. Title XX or state-funded child care funds should be available for recipients enrolled in training and education. Financial aid should not be counted as an asset when computing AFDC grant levels and education expenses, including tuition and fees. Books, supplies, transportation, meals, child care, tutorial services, and medical expenses associated with attending college should be deducted from earnings when calculating grants.
3. Finally, local social service offices should inform recipients and caseworkers of the new rules. Even where aid reductions or other disincentives are unavoidable, a greater level of certainty about the likely results of a decision to pursue education is helpful.

#### Examples

In Wisconsin, agreements between welfare and education officials protect recipients by guaranteeing that education aid will not threaten transfer payment benefits. States can protect against loss of benefits for recipients returning to school by setting up special accounts to pay educational expenses (rather than providing direct loans or grants). Maine has used this strategy to prevent loss of Food Stamp benefits.

#### Maine

In 1981, Maine passed the Job Opportunities Act, declaring it state policy to use available resources and institutions to

educate, train, and employ qualified and eligible recipients of the AFDC program to enable them to become self-sufficient. The law established three new entities: (1) an AFDC Coordinating Committee; (2) an AFDC Advisory Council; and (3) the Welfare Employment, Education and Training Services program (WEET).

The Coordinating Committee--the commissioners of human services, labor, and education and cultural services--oversees training and education programs, support services, and remedial and preparatory programs and promotes opportunities for qualified recipients at the University of Maine and other institutions. The advisory council brings together AFDC recipients, business and labor officials, and representatives of organizations serving low-income women.

The WEET programs provide employability assessment, plan development, referral to training, education, counseling and support groups, job search, OJT contracts, assistance with related child care, transportation, and other support costs. From April 1982 to January 1985, WEET helped 3,287 AFDC recipients find jobs at an average entry wage that rose from \$3.49 to \$4.38 per hour. WEET enrolled another 2,620 recipients in training and education courses, raised the number of AFDC recipients passing General Education Development (GED) exams annually from 72 to 171, enrolled 319 in postsecondary vocational-technical institutes, and more than doubled the number attending the University of Maine from 269 to 648 (which required a change in regulations to exclude student loans as an asset).

The Job Opportunities Act also linked the state AFDC bureaucracy with state economic development agencies. WEET officials are notified of all job openings created through Community Development Block Grant awards. The Finance Authority of Maine now requires (as a result of a 1984 amendment) all businesses seeking financing to submit a plan describing potential jobs for recipients, including skills needed. Finally, the law established a venture capital fund jointly administered by Coastal Enterprises (a nonprofit community development corporation) and private foundations to assist growing businesses that agree to reserve at least one-third of their jobs for the economically disadvantaged. As of 1985, Coastal Enterprises had made loans to 13 businesses, creating 136 jobs for economically disadvantaged people.

#### TRAINING THE UNEMPLOYED

Until recently, the unemployed who signed up for training or education were considered no longer "ready and available for work" and



lost their benefits. Under the Job Training Partnership Act of 1982, however, training funded under Title III (dislocated workers retraining) is "approved training." States have been slow to implement and market their power to maintain eligibility for participants in "state approved" training programs. Many unemployed people are unaware that they can enroll fulltime in some programs and retain eligibility.

Most of the unemployed do not need retraining to find another job, even in distressed communities. However, some could productively invest in new skills. They are deterred in the short run by the illusion that their old job will return, an illusion often fed by the pronouncements of local officials who promise to reopen the plant or bring in another one just like it. In the long run, they are deterred by the fear of the loss of eligibility and by the belief that retraining is not useful.

Therefore, the unemployed use unemployment and Trade Adjustment Assistance benefits to bridge what they perceive as a temporary loss of earnings and enroll in training programs only when benefits are nearly exhausted. For most, this is quite rational. In heavy manufacturing, reemployment depends on seniority and on maintaining union membership (retraining would lose one's place in the local queue). In addition, most dislocated workers view training as unproductive, and for good reason. In Youngstown, for example, very few of the steel workers who enrolled in training programs found a job as a result.

The unemployed should be much better informed about the opportunities that are available, including the placement rates and earnings from various programs, the type of financial assistance available, and the enrollment requirements. Employment Service staff (or a BESE or Board of Education staff members) should be trained in this information and stationed in target Employment Service Offices to counsel the unemployed about training. The results of this model program should be carefully monitored, asking questions such as how many of those counselled take advantage of training opportunities and what type of unemployed (skilled or unskilled, long-term or short-term) take advantage of the program.



#### VO-TECH PROGRAMS WITHIN LOUISIANA'S PRISONS

Adult education programs within Louisiana's correctional facilities began in the late 1960s with a single course offered at the Louisiana State Penitentiary at Angola. At present, adult education programs (which include vo-tech programs) are offered at all nine of the State's correctional facilities. Total enrollment for these programs currently exceeds 1,500, with a waiting list of well over 500. Five more facilities, all of which will offer vo-tech programs, are scheduled to be constructed over the next few years.

Eighteen programs are presently offered within the correctional system. These include Adult Basic Education/GED, college courses, and 16 vo-tech programs. According to the Louisiana State Department of Corrections, the four largest programs on a systemwide basis are:

| <u>Programs</u>           | <u>Enrolled</u> |
|---------------------------|-----------------|
| Adult Basic Education/GED | 673             |
| Welding                   | 199             |
| Auto Mechanics            | 118             |
| Auto Body and Repair      | 91              |

Total current (1986-87) inmate enrollment for all Department of Corrections adult education programs at all facilities is presented in Table A.5.1. Total numbers of inmates waiting to enroll are presented in Table A.5.2.

#### Administration and Management

BESE has overall responsibility for delivering the educational services required for all adult education programs within State correctional facilities. In turn, the Department of Corrections has the overall responsibility for providing and maintaining educational facilities and for supervising the enrolled inmates. As a general rule, the Department of Corrections also purchases all equipment required for the initial course offering. BESE is responsible for equipment maintenance and subsequent equipment purchases.

As a practical consideration, BESE has delegated the authority to administer and deliver these services to the director of the vo-tech school that is nearest to each correctional facility. Additionally,

Table A.5.1 Inmates Enrolled, Fiscal Year 1986-87

| Programs                        | Correction Facilities* |     |      |      |     |     |     |       |       | Totals |
|---------------------------------|------------------------|-----|------|------|-----|-----|-----|-------|-------|--------|
|                                 | DCI                    | HCC | LCIS | LCIW | LSP | WCC | WCI | WTF-N | WTF-S |        |
| Adult Basic Ed/GED              | 42                     | 66  | 92   | 44   | 211 | 97  | 74  | 23    | 24    | 673    |
| College                         |                        |     | 28   |      |     |     |     |       | 14    | 42     |
| Air Condition and Refrigeration |                        | 21  |      |      |     |     |     |       |       | 21     |
| Auto Body and Repair            |                        |     | 37   |      | 18  |     |     |       | 36    | 91     |
| Auto Mechanics                  |                        |     | 36   |      | 32  | 29  | 21  |       |       | 118    |
| Business (Platt)                |                        | 20  |      | 23   |     |     |     |       |       | 43     |
| Carpentry                       |                        |     |      |      | 21  | 22  |     |       |       | 43     |
| Drafting (Platt)                |                        | 36  |      |      |     |     |     |       |       | 36     |
| Electronics                     | 12                     |     |      |      |     |     |     |       |       | 12     |
| Food Service                    |                        |     |      |      | 17  |     |     |       | 18    | 35     |
| Forestry                        |                        |     |      |      |     | 10  |     |       |       | 10     |
| Graphic Arts (Printing)         |                        |     |      |      | 15  |     |     |       |       | 15     |
| Meat Cutting                    | 51                     |     |      |      |     |     |     |       |       | 51     |
| Office Occupations              |                        |     |      | 20   |     |     |     |       |       | 20     |
| Paralegal (Platt)               |                        | 38  |      | 24   |     |     |     |       |       | 62     |
| Sewing                          |                        |     |      | 16   |     |     |     |       |       | 16     |
| Upholstery                      |                        |     |      | 20   |     |     |     |       |       | 20     |
| Welding                         |                        | 24  | 55   | 19   | 37  | 48  | 16  |       |       | 199    |
| TOTALS                          | 105                    | 205 | 248  | 166  | 351 | 206 | 111 | 23    | 92    | 1,507  |

\*DCI = Dixon Correctional Institute  
 HCC = Hunt Correctional Center  
 LCIS = Louisiana Correctional and Industrial School  
 LCIW = Louisiana Correctional Institute for Women  
 LSP = Louisiana State Penitentiary  
 WCC = Wade Correctional Center  
 WCI = Washington Correctional Institute  
 WTF-N = Work Training Facility-North  
 WTF-S = Work Training Facility-South

Source: Louisiana Department of Corrections.

Table A.5.2. Inmates Waiting, Fiscal Year 1986-87

| Programs                        | Correction Facilities* |     |      |      |     |     |     |       |       | Totals |
|---------------------------------|------------------------|-----|------|------|-----|-----|-----|-------|-------|--------|
|                                 | DCI                    | HCC | LCIS | LCIW | LSP | WCC | WCI | WTF-N | WTF-S |        |
| Adult Basic Ed/GED              | 34                     | 65  | 47   |      | 200 | 24  | 58  | 12    |       | 440    |
| College                         |                        |     |      |      |     |     |     |       |       | -0-    |
| Air Condition and Refrigeration |                        | 9   |      |      |     |     |     |       |       | 9      |
| Auto Body and Repair            |                        |     |      |      |     |     |     |       |       | -0-    |
| Auto Mechanics                  |                        |     |      |      |     |     | 11  |       |       | 11     |
| Business (Platt)                |                        | 16  |      | 3    |     |     |     |       |       | 19     |
| Carpentry                       |                        |     |      |      |     |     |     |       |       | -0-    |
| Drafting (Platt)                |                        | 12  |      |      |     |     |     |       |       | 12     |
| Electronics                     |                        |     |      |      |     |     |     |       |       | -0-    |
| Food Service                    |                        |     |      |      | 2   |     |     |       |       | 2      |
| Forestry                        |                        |     |      |      |     |     |     |       |       | -0-    |
| Graphic Arts (Printing)         |                        |     |      |      |     |     |     |       |       | -0-    |
| Meat Cutting                    |                        |     |      |      |     |     |     |       |       | -0-    |
| Office Occupations              |                        |     |      |      |     |     |     |       |       | -0-    |
| Paralegal (Platt)               |                        | 9   |      |      |     |     |     |       |       | 9      |
| Sewing                          |                        |     |      |      |     |     |     |       |       | -0-    |
| Upholstery                      |                        |     |      |      |     |     |     |       |       | -0-    |
| Welding                         |                        | 26  |      |      |     |     | 9   |       |       | 35     |
| TOTALS                          | 34                     | 137 | 47   | 3    | 202 | 24  | 78  | 12    | -0-   | 537    |

\*DCI = Dixon Correctional Institute  
 HCC = Hunt Correctional Center  
 LCIS = Louisiana Correctional and Industrial School  
 LCIW = Louisiana Correctional Institute for Women  
 LSP = Louisiana State Penitentiary  
 WCC = Wade Correctional Center  
 WCI = Washington Correctional Institute  
 WTF-N = Work Training Facility-North  
 WTF-S = Work Training Facility-South

Source: Louisiana Department of Corrections.

BESE and the Department of Corrections have designated a single vo-tech school director as coordinator for all adult education programs throughout the correctional system. However, this coordinator has practically no funding or legal authority.

In practice, although there is some coordination, the Department of Corrections must work with nine (soon to be 14) different directors. There is no functional office vested with the authority to manage the system as a whole, nor is there an individual position vested with the systemwide authority to manage educational services and to cooperate and negotiate with the Department of Corrections. This somewhat fragmented management structure has given rise to recurring administrative and management problems between vo-tech directors and the Department of Corrections. These problems are likely to be compounded in the future as the number of correctional facilities grows.

#### Importance

Although the curricula may often be the same, vo-tech programs within correctional facilities are by nature different from those offered to the general public. In addition to the obvious differences such as job placement difficulties, lack of education among enrolled inmates, voluntary enrollment but mandatory attendance, and so on, these programs also have additional, if not different, objectives within a correctional environment.

From the perspective of the Department of Corrections, prison vo-tech programs play a significant role in decreasing the volatility of the prison environment. An inmate knows that when he receives a release date, he will have the opportunity to enroll in a vo-tech program. In this sense, the prison vo-tech programs are also a source of hope. These programs represent a break in the inmate's customary routine (which most often includes repetitive prison work details) and signify the beginning of the final phase of incarceration. They also afford the inmate the opportunity to receive training that will increase the probability of gainful employment after release.

There is strong evidence to suggest that prison vo-tech programs exert a significant influence on recidivism rates. The most recent empirical evidence on this subject is presented in a December 1986

study by Don Udell and Frankie Morton of the University of Oklahoma.

This study offers the following conclusion:

"When comparing the recidivism rate of [prison] Vo-Tech graduates to that of the prison system's general population it becomes obvious that a significant difference exists. The recidivism rate for the general population falls between 45% and 77%. When compared to 23.87% for those completing vo-tech training programs it appears that vocational-training may have some positive effect on the recidivism rate."

This conclusion is consistent with the results of an informal study performed by the Louisiana Department of Corrections some years back that indicated a recidivism rate for Louisiana prison vo-tech program completers of approximately 13 percent. It should be emphasized that these conclusions do not claim a full cause-and-effect relationship between prison vo-tech program completion and drastically reduced recidivism rates. Nevertheless, such programs apparently play a significant role in the reduction of recidivism rates.

The Louisiana correctional system is confronting a series of problems associated with overcrowding and excess demand for space, Federal mandates for additional space and prison construction/renovation, and dwindling financial resources at the State level. Under these circumstances, programs that play a demonstratable role in effectively reducing recidivism rates are crucial.

Since these programs effectively serve objectives that are unique to the correctional environment, it is inappropriate to manage and evaluate them on the same basis as postsecondary vo-tech school programs. From the Department of Corrections' standpoint, the value of prison vo-tech programs as a correctional tool is unquestionable. This is true to such an extent that the Department has stated that it will not build a new prison without vo-tech programs and facilities.

#### Recommendations

As a consequence of these factors, prison adult education programs throughout the State should be administered, managed, budgeted, and evaluated as a separate educational unit using the following guidelines:



1. A special school district should be created as the administrative unit for all prison adult education programs.
2. A director or superintendent should be appointed by BESE as the chief administrative officer of the special district. This individual should report directly to BESE.
3. The director should be given the responsibility of actively planning, cooperating, and negotiating with the Department of Corrections as an ongoing means of effectively pursuing both educational and correctional objectives.
4. The director, in cooperation with Corrections officials and in consultation with Department of Education staff, should develop a separate set of policies, guidelines, and objectives for the Special District.
5. The director, in cooperation with Corrections officials and in consultation with Department of Education staff, should develop program evaluation guidelines addressing such measures as competency testing, placement, and recidivism rates as they relate to previously developed district objectives.
6. Although it is not imperative that special district operations be fully functional well in advance of new prison openings, it is important that a district director be appointed as soon as possible in order to:
  - a. Develop staffing, operational, and budgetary requirements for the new district (since each prison program already has instructors, staffing requirements should be minimal); and
  - b. Lead the planning process for vo-tech programs within new prisons.

#### LOUISIANA'S CURRICULUM LAB

The presence of an appointed Superintendent of Education will result in a more rational management structure for public elementary and secondary education and postsecondary vo-tech education in Louisiana. The Superintendent will be the employee of BESE, and the Department of Education will serve as the Superintendent's staff. Under these circumstances, the Curriculum Center's present support function can be effectively incorporated into the overall staff and support operations of Louisiana's postsecondary vo-tech system. More specifically, the Center should report directly to the Trade and Industrial Education (T&I) unit within the State Office of Vocational

Education. T&I is currently responsible for providing technical assistance in instructor certification, development of curricular materials, new program development and implementation, development of minimum standards, perservice and in-service training, etc.

#### The Center's Role in Curriculum Development

Activities such as updating curriculum guides with the newest developments, new program development, and standardized competency testing will play a crucial policy role in Louisiana's future vo-tech system. It is the intent of this recommendation to foster a new structure in which the considerable resources of the Curriculum Center are an integral part of a focused and well-coordinated curriculum development effort that effectively supports the vo-tech system. This can be better accomplished if the Director of the Curriculum Center reports directly to T&I and the Center's budget becomes a subunit of the T&I budget or the Office of Vocational Education budget.

#### The Printing Function

The Curriculum Center provides a large amount of printing services at cost to the State's vo-tech institutions. It should be noted that the Center's printing rates do not reflect the real cost of these services in that they do not include printing personnel salaries, equipment depreciation, and other indirect costs. Although it is true that the State incurs the real cost whether it is paid by the Center or the vo-tech institutions, nonetheless these costs should be formally captured in some manner for management and accountability purposes in tracking efficiency. In view of the large quantity of printing performed by the Center and in view of the Center's present capacity to provide specialized printing services required by the schools, the Center should hold a decided competitive advantage over other printing alternatives.

Another accountability measure would also be built in through other study recommendations. If the vo-tech schools are allocated funds through a formula and if these funds are provided to the schools on a lump-sum basis to be spent at the director's (and his board's) discretion, there is a high probability that only those printing services that are absolutely necessary will be purchased. The amount

of services purchased may be more, less, or the same as the amount currently being purchased by these schools.

Location

Although there may be some advantage in moving the Center from its present location to Baton Rouge, at this time it appears that the costs (time, money, and disruption) would substantially exceed the benefit. This issue should be reevaluated one or two years after the new management system is fully functional should major problems begin to emerge.

#### NOTES

<sup>1</sup>Parnell, D. The neglected majority. Washington, D.C.: The Community College Press.

<sup>2</sup>Warmbrod, C. & Long, J. (Oct/Nov. 1986). College bound or bust: Ten principles for articulation. AACJC Journal, 29-31.

<sup>3</sup>Palmer, J. (1986-87) Bolstering the community college transfer function: An RIC Review. Community College Review, 14(3), 53-63; and Kintzer, F. C. & Wattenbarger, J. L. (1985). The articulation/transfer phenomenon: patterns and practices. Horizons Issues Monograph Series. Washington, D.C.: American Association of Community and Junior Colleges, Council of Universities and Colleges.

<sup>4</sup>Palmer, J. (1986-87) Bolstering the community college transfer function: An RIC Review. Community College Review, 14(3), 53-63.

<sup>5</sup>Richardson, R. C., Jr. (1984). Improving opportunities for earning the baccalaureate degree for urban students. Paper presented at a meeting of the Ford Foundation, Los Angeles, California, February 3-4, 1984, (ERIC Document reproduction Service No. 241 074).

<sup>6</sup>Bogart, Q. J. & Murphey, S. I. (Fall, 1985). Articulation in a changing higher education environment. Community College Review, 13(2), 17-22.

<sup>7</sup>Kintzer, F. C. (1973). Middleman in Higher Education: Improving Articulation Among High Schools, Community Colleges, and Senior Institutions. San Francisco: Jossey-Bass, Inc., Publishers.

<sup>8</sup>Georgia Governor's Education Review Commission. Priority for a Quality Basic Education. A second report to Governor Joe Frank Harris and the Georgia General Assembly. December 1984.

<sup>9</sup>Brender, R. L. & Martin, W. J. (Dec/Jan 1985-86). To market, to market: two-plus-two. AACJA Journal, 32-36.

<sup>10</sup>Letter from Carole M. Johnson, Director, Planning and Support Services, Occupational Education Division, State Board for Community Colleges and Occupational Education, Denver, CO, September 24, 1986.

<sup>11</sup>Committee for Finance and Programs (July 11, 1986). Discussion of Vocational Education: A Concept Paper. Texas State Board of Education.

<sup>12</sup>"Vocational-Technical Education: A Successful Tool for Rehabilitation," December 1986.

Section B  
BETTER MANAGEMENT OF PROGRAMS



Appendix B.1  
DISCRETION

## Appendix B.1

### DISCRETION

---

RECOMMENDATION B.1: The Legislature Should Grant Vo-Tech Schools Greater Discretion in Decision-Making Without Prior Approval From BESE or the Division of Administration.

---

### IMPLEMENTATION

1. Directors have better information about local training opportunities, the strengths of their staff, local labor market conditions, and the potential of their students, and they have a strong stake in the success of their schools. Consequently, they should be given greater discretion over day-to-day management, including staff hiring, programs to offer, tuition, and customized training programs.
  2. The greater discretion is intended to encourage directors to develop innovative ways of serving their clients and to grant them greater flexibility to adapt to a rapidly changing economy. They would be able to act more like proprietary training institutions while retaining their fundamental public purpose.
  3. Greater discretion must be accompanied by greater accountability through closer evaluation of performance and audit by BESE (see Appendices A.2 and A.3) and approval by a local board (see Appendix C.2).
  4. Greater discretion requires greater budgetary freedom, which will allow the revenues generated through the allocation formula to be spent on eligible activities (defined by BESE) in a way determined by the director and approved by the local board (see Appendix C.1). In addition, self-generated revenues would be retained by the school (see Appendix C.4).
-

## BACKGROUND

Generally, over the past decade local institutions have lost power in policy making and management as that power increasingly has been given to area, regional, and state agencies or boards to facilitate efficient coordination of state resources in the provision of postsecondary education. At the same time, there is widespread recognition that local institutions, especially vocational-technical institutions and community colleges, must retain flexibility if they are to fulfill their mission of meeting local training needs. This is especially true in view of the rapidly increasing changes in local training needs.

There is perhaps no better example of the advantages of endowing local vocational-technical schools with greater discretion over operational decisions than that afforded by private providers, who have become known for their ability to rapidly shape their programs to fit current market demands and to provide high graduate placement rates. Although these purported strengths are difficult to document, the procedures used by private providers in these and related areas may provide valuable lessons for nonprofit, public providers regarding the advantages of granting vo-tech schools greater discretion over operational decisions. For this reason, this appendix will address the following questions:

- . What methods do private providers use to identify current and emerging training needs of business and industry?
- . What methods do private providers use to place graduates in jobs?
- . What methods are used to recruit students?
- . What are the characteristics of students who attend private occupational schools?

### IDENTIFYING TRAINING NEEDS

To stay in touch with emerging market demands, top administrators associated with private institutions make maximum use of several sources of information, some of which may rarely be considered by public providers. By integrating information from these several

sources, private providers can develop a rather accurate picture of current and developing training needs. These sources include a strong informal network with their colleagues, close contact with textbook publishers, close contact with representatives of equipment and teaching aid manufacturers, labor market studies published by public postsecondary institutions, and newsletters published by associations of private providers. Each of these sources will be discussed in turn.<sup>1</sup>

#### Informal Colleague Network

Private providers maintain a strong informal network both nationwide and worldwide. Unless a colleague is in direct competition, private providers share information about emerging training needs on an ongoing, dynamic basis. The most urgent information comes from two primary sources. The first is newspaper stories and announcements about changes in business and industry that may affect training needs. The second is direct calls from business and industry managers who are seeking a training provider. Private providers can respond immediately to this type of information. They do not have to be concerned about the long process involved in board approval, "turf battles," or "red tape," such as obtaining competitive bids on needed equipment. For this reason, they can rapidly shape an existing program to meet the need or expedite the development of an entirely new program.

The impact of this informal network can be seen in the increasing nationwide trend for private providers to serve displaced workers. For example, in Detroit private providers are working with both management and labor representatives in the automobile manufacturing industry to provide retraining for displaced workers. On a national basis, serving displaced workers has rapidly become a major part of the private provider's work, whereas public postsecondary institutions are currently retaining this as a relatively small portion of their work and only beginning to move systematically in that direction.

The informal networks provide another advantage to private providers for rapidly responding to current market needs. The initial providers of a new program take a development risk; but, through the informal network, they sell (and sometimes give) the new program to

colleagues who are not direct competitors within their geographic area. This means that programs can be operational in a very short period of time. In particular, small schools need only adapt the program to local certification standards and to local market needs.

#### Textbook Publisher Network

Private providers also stay in touch with current market needs through textbook publishers. Many of the large publishing houses have proprietary school divisions. There is an informal network between these publishers and the administrators of private institutions. Based on this contact, administrators are kept aware of emerging courses and programs. This is the reverse of the procedure used in most public postsecondary institutions, where the role of textbooks comes into play after the decision to install a new program has been made. The newly hired instructor is likely to select the textbook, so the administrator has no apparent need to examine textbook offerings even at this late point in the process.

#### Equipment and Training Aid Manufacturers

Equipment manufacturers and teaching aid manufacturers also influence the curricula in private institutions. If half-a-dozen salesmen show up at the institute selling a particular kind of machine, administrators are alerted to coming changes in business and industry. At small, private institutes, equipment salesmen talk with top administrators. At public postsecondary institutes, they are more likely to talk with purchasing agents or instructors who are not likely to pass the information on to administrators.

#### Labor Market Information

Private providers have access to results of studies of labor market needs financed by public postsecondary institutions. Additionally, they have access to information emanating from agencies administering the Job Training Partnership Act and from the National/State Occupational Information Coordinating Committees. Private providers are in a position to respond rapidly to this information. They can analyze this information in conjunction with



that from the other sources discussed, and the influence on existing programs is almost immediate.

The implementation of entirely new programs takes more time, but is generally much more rapid than for public postsecondary institutions. For example, estimates were obtained for the time required from the inception of an idea for a new program to its operation within the North Carolina Community College System. The estimates, which were given by a few individuals who are thoroughly familiar with the system, ranged from six months to three years. It was generally agreed that the six-month estimate was very optimistic.

#### Association Newsletters

Private provider associations supply member institutions with information about pending legislation and analyses of the impact legislation will have on institutions and training programs. Further, the associations facilitate the formation of informal networks among the providers and in some cases serve as catalysts for the formation of cooperative, organized efforts to meet identified regional needs.

#### PLACING GRADUATES IN JOBS

For private providers, placement involves more than identifying possible job openings for graduating students. One study<sup>2</sup> noted that it involves maintaining continuous contact with potential employers, tailoring instructional program offerings to the nature of available job market openings, instructing students in needed job-seeking and job-holding skills, finding part-time jobs for students who need work, matching graduates to the available jobs, scheduling placement interviews, and following up on graduates' success in order to keep program offerings up-to-date and effective. Research Triangle Institute interviews with several placement counselors employed by private providers indicated that they maintain continuous contact with graduates who keep them posted on job openings. They credited this with being a major contributor to high job placement rates. It is also a major recruiting method.

A key to understanding the role that placement plays in private institutions is in knowing that their students are buying graduation and all that goes with it, which includes entry into the world of work

(i.e., job placement). These students are rarely buying education. Student recruitment methods and the types of students attracted to private institutions are directly related to this.

#### RECRUITING STUDENTS

It is well known that private providers recruit students on the basis of institutional placement services and records. Some private providers are reputed to promise a tuition refund if the graduate is not placed in a job. However, an informal search by RTI did not locate any private providers who are currently making this promise. This practice may have declined since the late 1970s, when private providers were investigated by Congress and the Federal Trade Commission for possible consumer abuses, including misleading recruiting and admission policies as well as untrue or misleading advertising. Even so, the marketing of private providers is frequently characterized as aggressive. Today, nonprofit public and private institutions are often as aggressive in marketing as the profit-seeking vocational schools.<sup>3</sup> However, public institutions currently do not emphasize job placement in their marketing efforts as strongly as the profit-seeking schools.

The integral role of job placement in the recruitment procedures of private providers can be seen on closer inspection of their methods. As students are being recruited, they are strongly urged to visit the school, which is a "sales showcase" that centers on job placement. Many schools place pictures of recent graduates just inside their front doors. Under each picture is the name of the student's current employer and a statement of his satisfaction with the school's program. In some cases potential applicants are introduced to recent enthusiastic graduates who are working for the school as secretaries or receptionists. They also talk with teachers who encourage them to enroll.

This emphasis on job placement is also found in the paid advertisements of private providers. For example, mailers may include the names of businesses that have hired the school's graduates.<sup>4</sup> One study<sup>5</sup> showed that the three most frequently used methods of recruiting by private providers are newspaper ads, encouragement of referrals by

former students, and yellow pages. All three methods are compatible with a strong emphasis on job placement.

#### STUDENT CHARACTERISTICS

A major distinguishing characteristic of private school vocational-technical students is their future job orientation.<sup>6</sup> The National Center for Educational Statistics' (NCES') 1983 survey of students in noncollegiate postsecondary schools with occupational programs indicates that 53 percent of the students selected the school because it had a "good reputation for training people for work," or that it had a reputation for "placing its graduates in good jobs." Approximately 84 percent of the students indicated that they would look for a job in their field of study. Only three percent said that they were uncertain about their work plans, and only seven percent said that they would continue at their current job.

Very few of the students surveyed by NCES said that cost or the availability of financial aid were significant factors in selecting a school. Comparable figures from the 1977 NCES survey indicate that this is considerably less true for public school students. Tuitions at private trade and technical schools range from \$2,000 to \$12,000, depending on the particular program content and length.<sup>7</sup> Students who willingly pay this high tuition can be expected to be much more highly motivated to succeed in their programs and more dedicated to seeking and retaining a job in a related field. Fewer students would be inclined to enroll for their personal entertainment (e.g., "to have something to do"). Additionally, fewer students would abuse the system by repeatedly enrolling and dropping out of a course until they finally managed to obtain a high grade.

#### SUMMARY

In summary, the world of private providers centers on successful placement of their graduates in the world of work. Students who attend private institutions are job oriented, and the major reason they select private institutions is because the institutions have a reputation for placing graduates in good jobs. These students are buying graduation and entry into the world of work that they associate with graduation; they rarely are buying education.

To succeed, private providers must develop a reputation for placing graduates in good jobs. For this reason, they continually monitor emerging job-training needs and place heavy emphasis on extensive job-placement services. To appeal to students who desire entry into the world of work, private providers use recruiting methods that strongly emphasize job-placement services.

#### NOTES

<sup>1</sup>The information in this portion of the paper is based primarily on an RTI interview with Bernell C. Dickinson, Director of Veterans Education and Proprietary School Services, North Carolina Community Colleges. Ms. Dickinson worked in proprietary occupational schools for 10 years before accepting her current position.

<sup>2</sup>Jung, S. M. (1980). Proprietary Vocational Education. Columbus, Ohio: National Center for Research in Vocational Education, The Ohio State University.

<sup>3</sup>Hechinger, F. M. (March 31, 1987). Competing for students, The New York Times, p. 19.

<sup>4</sup>Trivett, D. A. (1974). Proprietary Schools and Postsecondary Education. RIC/Higher Education Research Report No. 2. Washington, DC: American Association for Higher Education.

<sup>5</sup>Wolman, J. M., Campbell, V. N., Jung, S. M., and Richards, J. M. Jr. (1972). A Comparative Study of Proprietary and Nonproprietary Vocational Training Programs. Palo Alto, CA: American Institutes for Research.

<sup>6</sup>National Center for Educational Statistics. (February, 1983). Characteristics of Students in Noncollegiate Postsecondary Schools with Occupational Programs. Washington, DC: U.S. Department of Education.

<sup>7</sup>Porter, Sylvia. (April 7, 1987). Vocational education becoming more important as economy shifts. The News and Observer, Raleigh, NC, p. 8D.



Appendix B.2  
PLACEMENT RATES

Appendix B.2  
PLACEMENT RATES

---

RECOMMENDATION B.2: Comprehensive Data on Placement Rates and Earnings of All Graduates of All Programs Should Be Compiled and Published.

---

IMPLEMENTATION

1. The Legislature should require all postsecondary training institutions--public and private--to furnish the Social Security numbers of their program completers to BESE.
  2. BESE should establish a small performance measurement council comprising school directors, BESE members, and a representative of the State Department of Labor to resolve issues such as what determines a program completer and how transfers to other institutions and movements out-of-state are to be treated.
  3. The State Department of Labor will match Social Security numbers with Unemployment Insurance files to determine what percentage of completers are employed and their average wage by program.
  4. These results will be published annually and distributed to high schools and Employment Services offices.
-

## BACKGROUND

If BESE and institute directors are to manage the vo-tech system well, they need information on how well their programs are meeting employers' demands for skilled labor. At present, the system of governance ensures that funds are spent in accord with detailed regulations on how training is to be conducted, not how well.

Once BESE has established the broad objectives for training programs, it must establish information systems that: (1) allow directors to weigh the value of different programs; (2) allow BESE to judge the performance of the overall system, individual directors, and programs; (3) provide potential students with information from which they can judge the value of different programs and institutions; and (4) help businesses select an institution to provide special training for their workforces.

In the absence of ideal data, and recognizing that no single quantifiable goal will capture all a program's objectives, BESE must continually experiment with performance measures. The two most important measures to consider are: (1) skills attainment--measured through competency tests; and (2) placement rates and earnings levels of program graduates. Careful studies of training programs have found that the best short-term indicator of someone's long-term employability prospects is their total earnings during the first three months.<sup>1</sup> Total earnings of a graduating class is the product of the placement rate and earnings.

Many attempts to measure the performance of vocational programs have attempted to assess whether graduates are hired in the fields in which they were trained. This matching is difficult and only of secondary importance. A major New York City bank recently announced that it was seeking people with communications skills for computer programming slots, arguing that it could teach computing skills much more easily than it could teach the ability to communicate. Trained programmers, it had found, were rarely able to communicate with non-programmers. Should a successful communications program be penalized because its graduates were being hired as computer

programmers? Earnings reflect how much private employers value the skills, broadly defined, that the employee has acquired in the course of training. The more rapidly new technologies are adopted, the more rapidly occupational and skill classifications are rendered obsolete.

It is important to measure both the placement rates and the earnings. The latter provide a crude measure of job quality. Relying on placement rates alone may encourage schools to concentrate on low-skill, easy-to-place occupations, or on getting graduates into short-term jobs. The Comprehensive Employment and Training Act (CETA), for example, judged local programs entirely on their average cost per placement. Local agencies sought out those people who would be easiest to place and provided them with low-cost job placement assistance, which helped them find jobs in the short run but did not provide them the skills to get better paying and more stable jobs in the long run.<sup>2</sup>

Performance measurement is not like zero-base budgeting. It does not require all agencies to fully justify all programs each year or to carry out elaborate cost-benefit studies for all their activities. It is a straightforward and feasible way of encouraging innovation, monitoring the performance of programs, and using statistics to achieve greater efficiency in public service delivery.

#### EXAMPLES

Arizona and Kansas provide examples of innovative approaches to performance measurement.

##### Arizona

For several years the Arizona Legislature had expressed concern over the quality of its postsecondary vocational education. There was no evidence that it was performing badly, but no evidence it was performing well either. Therefore, in 1984 the governor instructed his staff to analyze what could be done to evaluate postsecondary training programs. They met with representatives of both private and public training institutions. Although the former were generally in support of performance measures, the latter raised several objections, many of which have traditionally been levelled against attempts to use labor market measures of training programs.

As a result, a bill was passed in May 1985 requiring the annual publication of performance measures. The system is simple, as the following extracts from the legislation show:

A. The Center for Vocational Education [located in Northern Arizona University] Shall:

1. By the end of each calendar year publish and distribute a report of the placement rates and average salaries earned by persons completing vocational programs in this state during the prior fiscal year. This report may include information on a program which would be a vocational program except that it was not completed by at least 25 persons during the calendar year.

B. The Governing Board of Each Community College District Shall:

1. Transmit to the Center for Vocational Education the following information within 30 days of the end of the fiscal year:
  - . The Social Security number of each person who completed a vocational program during the previous fiscal year.
  - . Such information as the center may require in order to conduct a follow-up survey of a sample of vocational program completers.
2. Make available to students prior to or at the time of registration the report distributed by the Center for Vocational Education.

The Center provides the Social Security numbers of program graduates to the Arizona Department of Economic Security, which matches them with its unemployment insurance files, allowing them to determine employment status and earnings. Since individual data on unemployment insurance files is strictly confidential, data for programs with fewer than 10 completers is not calculated. Individuals who are unemployed, self-employed, or employed outside Arizona do not show up on the U.I. files, but are subject to traditional survey methods. Table B.2.1 shows a page from this annual report. The program violates no privacy requirements and is extremely cheap to implement.

Information is valuable only when it is in the hands of people who are in a position to act on it. The information contained in these new performance measures must somehow reach the hands of prospective enrollees as well as the system's administrators. The program requires the publication of the data (and appropriated \$14,000 for the purpose) and the distribution of the booklet to all students registering for postsecondary vocational education programs.

In 1987, Kansas enacted legislation to introduce a program similar to that implemented in Arizona to calculate and disseminate



Table B.2.1. Arizona Center for Vocational Education  
Post-Secondary Vocational Program Completer Study  
For Those Who Completed July 1, 1983 Through June 30, 1984

| COMMUNITY COLLEGE                             | Completers<br>in<br>Arizona | Number<br>with<br>Earnings<br>in<br>Arizona | Percent<br>with<br>Earnings<br>in<br>Arizona | Average<br>Earnings | Median<br>Earnings |
|-----------------------------------------------|-----------------------------|---------------------------------------------|----------------------------------------------|---------------------|--------------------|
| <b>Cluster<br/>Program</b>                    |                             |                                             |                                              |                     |                    |
| <b>GLENDALE COMMUNITY COLLEGE (Continued)</b> |                             |                                             |                                              |                     |                    |
| Fourth Quarter 1984                           |                             | 25                                          | 58                                           | 3432                | 3197               |
| First Quarter 1985                            |                             | 26                                          | 60                                           | 3892                | 3545               |
| Second Quarter 1985                           |                             | 26                                          | 60                                           | 4126                | 3812               |
| <b>Nursing</b>                                |                             |                                             |                                              |                     |                    |
| Nursing, General                              |                             |                                             |                                              |                     |                    |
| Annual (July, 1984 - June, 1985)              | 57                          | 52                                          | 91                                           | 14508               | 15241              |
| Third Quarter 1984                            |                             | 43                                          | 75                                           | 1764                | 1409               |
| Fourth Quarter 1984                           |                             | 49                                          | 86                                           | 3999                | 4732               |
| First Quarter 1985                            |                             | 48                                          | 84                                           | 5052                | 5452               |
| Second Quarter 1985                           |                             | 50                                          | 88                                           | 4802                | 4833               |
| <b>Service Occupations</b>                    |                             |                                             |                                              |                     |                    |
| Fireman Training                              |                             |                                             |                                              |                     |                    |
| Annual (July, 1984 - June, 1985)              | 3                           | *                                           | *                                            | *                   | *                  |
| Third Quarter 1984                            |                             | *                                           | *                                            | *                   | *                  |
| Fourth Quarter 1984                           |                             | *                                           | *                                            | *                   | *                  |
| First Quarter 1985                            |                             | *                                           | *                                            | *                   | *                  |
| Second Quarter 1985                           |                             | *                                           | *                                            | *                   | *                  |
| Law Enforcement Training                      |                             |                                             |                                              |                     |                    |
| Annual (July, 1984 - June, 1985)              | 20                          | 14                                          | 70                                           | 22567               | 20303              |
| Third Quarter 1984                            |                             | 13                                          | 65                                           | 5320                | 4650               |
| Fourth Quarter 1984                           |                             | 13                                          | 65                                           | 5765                | 5927               |
| First Quarter 1985                            |                             | 14                                          | 70                                           | 6073                | 4978               |
| Second Quarter 1985                           |                             | 14                                          | 70                                           | 6201                | 5308               |
| Other Public Service Occupations              |                             |                                             |                                              |                     |                    |
| Annual (July, 1984 - June, 1985)              | 14                          | 11                                          | 79                                           | 8061                | 7671               |
| Third Quarter 1984                            |                             | 7                                           | 50                                           | 1952                | 1535               |
| Fourth Quarter 1984                           |                             | 9                                           | 64                                           | 2056                | 1784               |
| First Quarter 1985                            |                             | 9                                           | 64                                           | 2656                | 2455               |
| Second Quarter 1985                           |                             | 11                                          | 79                                           | 2964                | 2821               |
| <b>MARICOPA SKILL CENTER (RIO SALADO CC)</b>  |                             |                                             |                                              |                     |                    |
| <b>Business</b>                               |                             |                                             |                                              |                     |                    |
| Cashier                                       |                             |                                             |                                              |                     |                    |
| Annual (July, 1984 - June, 1985)              | 49                          | 45                                          | 92                                           | 3291                | 2880               |
| Third Quarter 1984                            |                             | 30                                          | 61                                           | 1017                | 791                |
| Fourth Quarter 1984                           |                             | 32                                          | 65                                           | 1175                | 1225               |
| First Quarter 1985                            |                             | 26                                          | 53                                           | 1509                | 1553               |
| Second Quarter 1985                           |                             | 28                                          | 57                                           | 1455                | 1325               |
| <b>Business/Office Occupations</b>            |                             |                                             |                                              |                     |                    |
| General Clerical                              |                             |                                             |                                              |                     |                    |
| Annual (July, 1984 - June, 1985)              | 222                         | 175                                         | 79                                           | 5913                | 4510               |
| Third Quarter 1984                            |                             | 133                                         | 60                                           | 1606                | 1311               |
| Fourth Quarter 1984                           |                             | 134                                         | 60                                           | 1862                | 1733               |
| First Quarter 1985                            |                             | 134                                         | 60                                           | 2055                | 2118               |
| Second Quarter 1985                           |                             | 136                                         | 61                                           | 2178                | 2218               |
| <b>Construction</b>                           |                             |                                             |                                              |                     |                    |
| Mechanical Maintenance                        |                             |                                             |                                              |                     |                    |
| Annual (July, 1984 - June, 1985)              | 32                          | 28                                          | 88                                           | 12140               | 12220              |
| Third Quarter 1984                            |                             | 25                                          | 78                                           | 1786                | 1263               |
| Fourth Quarter 1984                           |                             | 27                                          | 84                                           | 1175                | 1225               |
| First Quarter 1985                            |                             | 23                                          | 72                                           | 4251                | 4435               |
| Second Quarter 1985                           |                             | 23                                          | 72                                           | 4531                | 4375               |
| <b>Electronics/Electrical Technology</b>      |                             |                                             |                                              |                     |                    |
| Electro Mechanical Assembly                   |                             |                                             |                                              |                     |                    |
| Annual (July, 1984 - June, 1985)              | 87                          | 73                                          | 84                                           | 6107                | 5297               |
| Third Quarter 1984                            |                             | 59                                          | 68                                           | 1789                | 1679               |

\* - Data not reported due to confidentiality

\*\* - Data not available

NOTE - The data for the four quarters does not total to the composite for the total year as different graduates may have been employed in each of the four quarters.

placement rates and earnings of all postsecondary business training programs in all institutions, public and private. The concept had been proposed by the Kansas State Occupational Information Coordinating Committee (SOICC). In a concept paper sent to the executive director of the Kansas Board of Regents in July 1986, Dean Prochaska, Chairman of the KSOICC noted:

The Kansas SOICC is seeking to develop a comprehensive system which will accomplish two purposes. The first is to track [vocational education] completers through a variety of sources and programs. The second purpose is to assist agencies to evaluate internally the true impact of their training programs in a way that factually measures employment or alternative outcomes.

The basic process is as follows. The cooperative agreements can be arranged between the several SOICC agencies, the Board of Regents, and the Department of Defense. The structure would be to interface Social Security Numbers (SSNs) from the program into or with the U.I. system.

The output will be the number of program completers who are working, in which county they are working, and their average wage. Those persons who cannot be found in the employed file can then be searched for in terms of the unemployment insurance file.

The Act, passed in April 1987, established the Kansas training information program, which requires that the State Board of Regents:

- (a) On or before December 31, 1987, and on or before December 31 thereafter, publish and distribute a report of the employment placement rates and average salaries earned by persons completing vocational education programs in this state during the prior fiscal year;
- (b) Establish an advisory committee consisting of representatives of vocational education institutions and participating proprietary schools to assist in the administration of the program; and
- (c) Prescribe all forms necessary for vocational education institutions and participating proprietary schools to provide the information necessary to produce the report.

The fiscal note attached to the bill stated that the Department of Education estimated that additional FY 1988 operating expenses of \$14,500 for printing, postage, and data processing would be incurred.

#### LINKING PERFORMANCE MEASURES WITH BUDGETS

Most vocational education systems disburse funds with no reference to how well recipients train or place students. The one exception is Florida, which enacted legislation in 1984 stating.<sup>3</sup>

Any secondary job preparatory program in which the average placement rate of persons completing the program is less than 50 percent for any given year and any post-secondary job preparatory program in which the average job placement rate is less than 60 percent for any given year, shall be automatically reviewed by the Department of Education. . .Any job preparatory vocational program in which the average placement rate. . .is less than 70 percent for three consecutive years shall be ineligible for future state funding.

Tying funding to performance is opposed because it increases uncertainty.<sup>4</sup> But every private firm and proprietary training institution is funded according to performance. It is a small price for the ability to channel public funds toward institutions that are performing well and away from those are unable to invest public funds as wisely.

When New York State created the Temporary Employment Assistance Program<sup>5</sup>, the program was awarded to the Department of Social Services (DSS) on condition that the Department's cost per placement was below the cost per placement under the WIN program, which was administered by the State's Department of Labor (DOL). If it failed, the administrative budget would pass the next year to the latter. This competition spurred DSS to place 1,000 people during the first year of the program (the low point in the 1982-83 recession) at a cost per placement about one-third that of DOL. When five other states adopted the program, with support from the Manpower Development Research Corporation, agencies were not under such competitive pressure. All five states, together, placed only 200 people during the first year.

Choice can be extended to the economically disadvantaged, who traditionally have had to accept whatever programs are offered to them. The Massachusetts Employment and Training Choices Program offers those people seeking help a voucher for training that may be used at almost any accredited training institution. Thus, the nonprofit training institutions that have enjoyed a monopoly on training for these groups would have to compete for their customers.

## OBJECTIONS TO PERFORMANCE MEASUREMENT

Many people object to the collection and dissemination of placement rates and earnings data of the sort needed to allow students to make an informed decision. For example, when Arizona was designing its program to publish this type of data, the following objections were raised:

1. The purpose of training is not simply to place someone for a job but to prepare them more broadly for their role in society. This observation, however, does not alter the fact that one of the main purposes of training is to make individuals more employable, and this data will allow them a more informed choice. In addition, maintaining close connections with local labor markets helps schools adjust to changing needs and also to attract career-oriented students.
2. The data will not be reliable. Establishing a credible data base confronts many practical problems (for example, what constitutes a successful placement?; how should students who join the military or go on for further education be classified?; and how long should a graduate's earnings be tracked?). In both Arizona and Kansas, these questions are answered through an advisory council.
3. Potential students do not understand the importance of a broad education and will attach too much weight to placement rates. This will penalize liberal arts programs relative to skills training programs. Although participants may have less experience of the world than bureaucrats, they know their own personal needs and capabilities and have the most to gain or lose in making enrollment decisions. Although it may be appropriate to warn individuals against relying on placement rates, it is not appropriate to deny them valuable information about their investment (after all, even for investments in securities, the SEC insists on the disclosure of basic data about the past performance of the business).
4. Measuring performance will penalize public institutions because they do not "cream" but must admit all students and offer a much broader curriculum. Creaming is an important concern. Those who fear creaming believe that institutions will either refuse to admit students who have a low probability of passing or of being placed or will concentrate good students in one institution and the less able in another. However, creaming is unlikely. First, for poor students to be denied places after the change implies that the overall number of places will decline. Since measuring does nothing to increase costs or to deny student funding, the student population seems unlikely to fall. A review of several highly successful proprietary institutions in Arizona

found that they had remedial education programs as extensive as those found in any community college. Second, for a harmful hierarchy to evolve assumes that: (1) the size of good and bad institutions stays the same (while it seems likely that successful colleges will expand and poorer ones contract); (2) the average quality of institutions remains the same; and/or (3) there are no new institutions entering the field. Administrators should monitor admissions and results to detect creaming if it occurs, but not treat it as an a priori reason for dismissing performance measurement.

5. Poor rural districts will not be able to compete with richer urban areas. To the extent that the publishing of the data does allow some students to select programs more wisely, the state as a whole will be better off, even if enrollment in some locations declines. Training institutions should be seen as a system, not as a series of independent institutions. Some reallocation of training responsibilities between rural and urban institutions would occur and would probably, in the long run, strengthen all programs.

Concern over the quality of data and how it is to be used is appropriate and should be addressed in the implementation of the program. Yet none of the concerns are so strong that we should deny decision makers--from employers choosing a place to train some of their workers to directors deciding what programs to offer to prospective students selecting a career--access to much better data than they now have.



#### NOTES

<sup>1</sup>See Geraci, Vincent, A Longitudinal Study of Labor Market Performance, University of Texas at Austin, 1982.

<sup>2</sup>See Robert Taggart, A Fisherman's Guide, W.E. Upjohn Institute, Kalamazoo, Michigan, 1981.

<sup>3</sup>Florida has encountered some problems measuring performance in its program because placement rates and earnings were to be measured by mail survey of graduating students which has yielded a low response rate.

<sup>4</sup>It may be necessary to change state regulations governing how funds may be carried over or shifted among funding categories.

<sup>5</sup>This is described in more detail in Patchen, Jerome, and Roger J. Vaughn, "Putting Welfare Recipients to Work," Journal of Social Studies, 1984.

Appendix B.3  
ASSESSMENT

## Appendix B.3

### ASSESSMENT

---

RECOMMENDATION B.3: The Basic Skills of All Those Enrolling in Vocational Programs Should Be Assessed Using the Same Tests in All Schools.

---

### IMPLEMENTATION

1. BESE should immediately initiate a study of the best test to use to assess a new student's basic skills and aptitudes.
  2. The study should be complete by the Fall of 1987. Pilot testing should begin by January 1988, and the uniform use of the test(s) should begin by the Fall of 1988.
  3. When the tests are introduced, BESE should initiate a long-term research project to monitor the relationship between assessment test results and ultimate job market performance (to determine the validity of the tests).
  4. BESE should also evaluate the relationship between assessment tests and the student's performance on later competency tests and determine whether measured improvements in basic skills and job skills may provide the basis for a bonus funding system (see Appendix C.1).
-

## BACKGROUND

Faced with large and growing numbers of entering students who lack adequate preparation for postsecondary level courses, postsecondary institutions are returning to mandatory testing coupled with required remedial courses and/or placement in courses and programs where the students have a reasonable chance of succeeding. This movement has not been without its detractors. Debate has revolved around two central questions. The first is whether it is appropriate for postsecondary institutions to teach below-postsecondary-level courses. The second is whether mandatory testing/remediation/placement conflicts with the "open-door" policy so strongly associated with the mission of public postsecondary institutions, particularly postsecondary vocational-technical institutions and community colleges.

Before these questions can be answered, additional questions need to be examined:

- . What are the relevant characteristics of high school graduates entering postsecondary educational institutions (i.e., are they adequately prepared for postsecondary level work)?
- . What is the response of state legislatures to underprepared high school graduates?
- . What is the response of postsecondary institutions to underprepared high school graduates?

### CHARACTERISTICS OF HIGH SCHOOL GRADUATES

The continuing decline of high school student academic performance as evidenced by achievement test data and inability to demonstrate acceptable levels of basic skills in the postsecondary classroom has been well documented, both in the scholarly literature<sup>1</sup> and the popular press.<sup>2</sup> Although postsecondary vocational-technical institutions and community colleges bore the initial brunt of the large numbers of unprepared (or underprepared) students in the 1960s and 1970s, underprepared students were soon enrolling in four-year colleges and institutions. Information from these institutions indicate the nature and extent of the problem facing all postsecondary institutions. Based on national data, John Roueche and his colleagues<sup>3</sup> write:

"It is not uncommon today to find 30-40 percent of entering freshmen reading below a seventh grade level. One urban college discovered that over 90 percent of its fall 1981 freshman class read below eighth grade level. Each fall, colleges find dozens, sometimes hundreds, of students who are functionally illiterate--that is, reading below a fourth grade level."

This information is confirmed for two-year community college institutions. Research<sup>4</sup> shows that, for these institutions, 32 percent of the entering freshmen need remedial reading, 33 percent need remedial writing, and 39 percent need remedial math.

The problem is not whether high school graduates can read or write a simple sentence, since most of them can. Rather, the problem is that students have not acquired higher-order thinking skills. They cannot think, make inferences, conceptualize, generalize, or work out logical relationships.<sup>5</sup> These are the very skills that students need to succeed in today's postsecondary vocational-technical courses and programs. Further, these are the skills being sought by employers for positions in today's rapidly changing businesses and industries.

Although reform movements are attempting to reverse the decline in academic skills among high school graduates, the positive results, if any, will not have an impact on high school graduates for many years to come. The problem is exacerbated by the low literacy standards set by competency-based education approaches, which were designed to be part of the solution. A student can leave high school with excellent academic records and yet be reading below the eighth-grade level. Even now, no state competency exam requires more than a ninth-grade reading level for graduation from high school, and the requirements of many states are even lower. By 1980, many U.S. school systems had eliminated the math requirements for obtaining a high school diploma.<sup>6</sup>

#### RESPONSE OF STATE LEGISLATURES

Legislatures are expressing increasing interest in the problem of high school graduates who are underprepared for entering postsecondary education and/or the work force. Because of the expense involved in assessment/remediation/placement, some legislators and taxpayers are questioning whether it is appropriate for postsecondary institutions to provide a service that should have been provided by the public school



system. At the same time, illiteracy rates have become an economic development issue. States are realizing that they cannot afford to neglect the underprepared students.

Facing the dilemma between cost and need, state legislatures and governing boards have become increasingly involved in assessment/remediation/placement over the last five years. States such as Florida, Georgia, and New Jersey have sought to standardize assessment practices across institutions. The legislatures of many other states, such as Virginia, are in the process of developing standardized procedures. Before summarizing assessment/remediation/placement activities in some of these states, an overview of the responses of postsecondary public educational institutions to underprepared entering students will be given.

#### RESPONSE OF POSTSECONDARY INSTITUTIONS

A 1984 study<sup>7</sup> of the response to low-achieving students by all colleges and universities in the United States showed that 84 percent of the 1,452 respondent institutions have basic skills courses specifically to meet the needs of low-achieving students, and almost 80 percent of the institutions offer some type of special services, such as counseling, tutoring, and financial aid to such students. Sixty-three percent of the institutions reported that they had developed programs to meet the needs of low-achieving students, and 24 percent reported that they had developed alternatives to programs, courses, or special services.

The study also reported that for community, junior, and technical colleges without college transfer programs, 84 percent offer courses for low-achieving students, 82 percent offer services, 64 percent offer programs, and 17 percent offer alternatives to programs, courses, or special services. Community, junior, and technical colleges with college transfer programs make an almost identical response to low-achieving students. This may suggest that as work is becoming increasingly technical, it is as important for students in postsecondary occupational programs to possess competencies in basic skills as it is for students in college transfer programs.

Although more colleges and universities have overhauled their basic skills programs and refined their student assessment procedures, there is little evidence of widespread, systematic evaluation of these programs.<sup>8</sup> However, evidence is accumulating that assessment/remediation/placement result in significant gains in student retention and grade-point averages.<sup>9</sup> For example, Friedlander<sup>10</sup> reports on a four-year study at Westmoreland Community College in Pennsylvania. Underprepared students who completed prescribed remedial courses had significantly higher college grade-point averages and completed 30 percent more credits over and above remedial courses than underachieving students who did not take (or only partially completed) the remedial courses. Further, the study reported the program added \$208,787 in revenue over the four-year period from increased retention. An estimated \$336,335 was lost because of students who failed to participate in the remedial program.

Miami-Dade Community College has developed a national reputation for its organizational development efforts, which include a student management system. Miami-Dade instituted these reforms to avoid the possibility that the college would be the focus of increasing national concern with graduates' declining literacy skills, poor preparation for upper-level college and university courses, and poor marketable skills for entering the workforce.<sup>11</sup> The central aspect of the reforms was the need to direct underachieving students toward success. One major component of the reforms is that students no longer have "open access" to the curriculum. Instead, Miami-Dade specifies levels of achievement needed to take classes, requires developmental work for those needing help to achieve this level, and sets out the courses that a student must take and the order in which they must be taken. Students are given considerable assistance in selecting the courses appropriate for their skills and the appropriate number of courses.<sup>12</sup> The Miami-Dade development program is comprehensive and includes ongoing monitoring and feedback to students on their progress as long as they are enrolled.

As a result of reinstating entry assessment and mandatory placement, retention at Miami-Dade declined in the first year

(45-50 percent), but increased in the following year (50-52 percent). Black students showed an increase in retention rates (32-48 percent), but black students entering in 1979 showed a 25 percent increase in the three-year graduation rate over those entering in 1976 (prior to the reforms). The enrollment level stayed flat during implementation of the entry assessment and the mandatory placement system.<sup>13</sup>

Statistics compiled for developmental students who had been in the system at Miami-Dade for three years revealed that for students tested who needed one developmental course, 51 percent were still in the system or had graduated. Of students tested who needed two developmental courses, 52 percent were still in the system or had graduated; and for students tested who needed three developmental courses, 47 percent were still in the system or had graduated. These statistics also revealed that if a student takes developmental courses when they are recommended at Miami-Dade, his chances of graduating are nine times better than if he declines the developmental courses.<sup>14</sup> These statistics are especially interesting since it is generally less costly to maintain student enrollment than to continually recruit new students.

#### EXAMPLES

The assessment/remediation/placement programs of Florida, Tennessee, and Georgia will be summarized. Additionally, a brief summary of the current status of the development of an assessment/remediation/placement program in Virginia will be given.

##### Florida

Before students can graduate from postsecondary vocational programs requiring 450 hours or more, they must demonstrate a minimum level of competency (set by program area) in arithmetic, writing, and language. To insure that students reach the appropriate competency levels, several steps are taken. First, students entering the programs must be tested in arithmetic, writing, and language. Students who test below the standards set for their program area must enroll in remedial courses, which may be taken concurrently with other courses in the programs. Prior to graduation students are again tested, with graduation contingent on meeting the test standards set for their program area.

Before beginning the assessment program, Florida formed a task-force to study standardized tests used by community colleges and vocational-technical institutions. Based on this study, four standardized tests (e.g., California Achievement Test) were selected. Each vocational-technical institution in Florida may choose from among these four tests for their assessment program. Additionally, each of the institutions must use a parallel form of these tests to assess students' basic skills prior to graduation.

Florida began its assessment program in recognition of the need for basic skills in entry-level positions in today's world of work. Employers had indicated that postsecondary vocational school graduates could not read, write, or communicate with customers at a satisfactory level. Florida state-level education personnel indicate that the testing program has not been detrimental to enrollment levels. Further, it has strengthened the relationship between the faculty and the developmental staff, since remedial courses must be directly related to vocational program content. Additionally, more work has been done in staff development, since vocational education teachers must take a reading course to increase their teaching skills in this area and to increase their understanding of students.

#### Tennessee

All regular-admission students, regardless of age, are required to undergo placement testing. This placement assessment generates three scores for each student--one each in reading, mathematics, and writing. Students who score below set cutoff points on the tests are not permitted to enroll in courses where basic skills are considered necessary for success until remediation courses are completed for the appropriate basic skills. For example, a student who scores low on writing may not enroll in any courses that require an entering minimum level of writing competency until after completion of the writing remediation course. If the student scores above the cutoff point for mathematics, he may proceed to take regular mathematics courses, even while taking writing remediation courses. The remediation courses are heavily used in Tennessee. As an example, 15 percent of the students enrolled at Columbia State Community College during 1985 were enrolled in remediation courses.

#### Georgia

The University System of Georgia (which includes both two- and four-year colleges) has had mandatory assessment for basic skills since the early 1970s. If entering students do not meet set cutoff points (e.g., 250 verbal and 280 math, or a high school grade point average of 1.8 or above), assessment tests are required. Although minimum cutoff points are established by the state, individual institutions may choose to set higher standards.

The three assessment tests, which are 55 minutes each, are for mathematics, English, and reading. Students are required to enroll in remedial courses for any scores below a cutoff point. Studies by individual institutions indicate that students who completed remedial courses did almost as well as students who did not need the courses.

#### Virginia

The state legislature has directed all higher education institutions to establish an assessment plan for entering students. The community college system, which provides vocational-technical training, has appointed a task-force to identify quantitative data appropriate to assessment. Assessment will be mandatory for all fulltime students. Virginia has not decided whether remediation and placement will be required or voluntary.

Virginia's developmental program responds to the legislature's question: "Who's going to take care of people who finish high school, but cannot read?" Each Fall, 15,000 to 20,000 students take developmental courses in the community college system. Some of these students take as many as nine hours of remedial work. Because this is very costly, Virginia plans to provide feedback to high schools on assessment performance of their students. This will allow the data to be used in public school system administrative decisions related to improving student achievement.

#### SUMMARY

Faced with large and growing numbers of underprepared entering students, increasing numbers of individual postsecondary institutions and entire state postsecondary educational systems are reinstating mandatory assessment/remediation/placement programs. The question of whether it is appropriate for postsecondary institutions to teach below-postsecondary-level courses is being answered in the affirmative by postsecondary institutions and by state legislatures. Further, since illiteracy has become an issue in many states and literacy is linked to economic development, legislatures and other governing bodies are increasingly setting standards for postsecondary assessment/remediation/placement programs.

Because there is no available "quick-fix" for public school systems, it is anticipated that postsecondary institutions will have a responsibility for remediation and placement for some time to come. The question of whether mandatory testing/remediation/placement conflicts with the "open door" policy that is so strongly associated



with the mission of public postsecondary institutions is being answered by development programs that are designed to help students succeed. The student's "right to fail" of the 1960s and 1970s is being superseded by the student's "right to succeed." Today's developmental programs are demonstrating that they contribute to student retention and achievement. They are rapidly evolving from a "one-shot" assessment/remediation/placement approach to student management systems that continually monitor and provide feedback and support to students during the entire time they are enrolled in a school.

# NOTES

<sup>1</sup> Roueche, J. E. (1983). New Directions for College Learning Assistance: New Look at Successful Programs (No. 11). San Francisco: Jossey-Bass.

<sup>2</sup> "Saving our Schools." (May 9, 1983). Newsweek Magazine.

<sup>3</sup> Roueche, J. E., Baker, G. A., & Roueche, S. D. (1984). College Responses to Low-Achieving Students: A National Study. Orlando, Florida: HBJ Media Systems Corporation.

<sup>4</sup> Platt, G. M. (1986). Should colleges teach below-college-level courses? Community College Review, 14(2).

<sup>5</sup> D'Angelo, F. J. (1982). Luria on literacy: The cognitive consequences of reading and writing. In J. C. Raymond (Ed.), Literacy as a Human Problem. Tuscaloosa, Alabama: University of Alabama Press.

<sup>6</sup> Roueche, Op. cit., 1984.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

<sup>9</sup> Bray, D. (1980). Sacramento City College Assessment Program. Paper presented at the meeting of the Learning, Assessment, Retention Consortium. Sacramento, CA.

<sup>10</sup> Friedlander, J. (1981-82). Should remediation be necessary? Community College Review, 9(3), 54-56.

<sup>11</sup> Roueche, Op. cit., 1984.

<sup>12</sup> Roueche, J. E., and Baker, G. A. (1986). The success connection. Examining the fruits of excellence. American Association of Community and Junior Colleges Journal, p.47-56.

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

Appendix B.4  
COMPETENCY

## Appendix B.4

### COMPETENCY

---

RECOMMENDATION B.4: Those Graduating From All Approved Programs Should Be Tested For Job Skills and Basic Skills Competency.

---

### IMPLEMENTATION

1. By July 1988, BESE should develop and adopt tests to measure the skills acquired by those graduating from vo-tech programs.
  2. BESE should initiate a two-year program to design competency-based instruction systems for all vo-tech programs. These should draw upon the work already completed by the Department of Education staff and on similar systems in use in other states.
  3. The performance of graduates on these tests should be used in the annual performance review of schools by BESE.
  4. BESE should develop ways of using the results of competency tests in a program to offer schools bonuses for above-average performance.
-

## BACKGROUND

Competency-based instruction is increasingly being adopted for postsecondary education, particularly for vocational-technical education. This background paper provides a brief definition of competency-based curricula, a discussion of the advantages of competency-based curricula, a listing of possible sources for materials, and some examples of some current uses of competency-based curricula.

### DEFINITION

With competency-based vocational education curricula, course offerings are based on identifiable objectives that enable students to develop and demonstrate specified levels of proficiency in skills, knowledge, and attitudes necessary to succeed as work-force members. Generally, competency-based curricula is in a modular format. For example, a curriculum may include a unit on interpersonal skills that is composed of modules on subtopics such as interviewing. Each module is composed of specific learning objectives, a list of required materials, learning activities and information, and a statement of how the student will ascertain the level of proficiency he has achieved. The evaluation of an individual's achievement is based on a comparison of his performance with a predetermined standard rather than through a comparison with the performance of other students.

### ADVANTAGES

Competency-based vocational instruction has several strong advantages over traditional instructional approaches. It permits direct, observable linking of education to identified employer needs. For example, in North Carolina all vocational curricula are designed to produce job-entry skills based on performance objectives validated by recent job analyses and task analyses. In many cases, employers are asked to participate in identifying relevant objectives for the learning modules. Further, modules may be used as "building blocks" to design programs that meet current needs of local employers. To meet the rapidly changing needs of these employers, modules may be added, deleted, or modified. This approach helps assure that graduates will



have the knowledge, skills, and attitudes for successfully meeting the current demands of local jobs.

Competency-based instruction facilitates articulation. It provides a means for ensuring that a student has the competencies necessary for success at the next level of education. Further, it provides a means for assessing equality of coursework and, therefore, provides a basis for awarding credit in the articulation process.

Competency-based instruction not only provides standards for evaluating individuals, it also provides standards for evaluating programs and institutions; that is, programs and institutions that are producing graduates with appropriate levels of proficiencies may be identified and, if desired, rewarded. Those producing graduates with less than appropriate levels of proficiencies may be offered assistance for improving their programs.

Finally, competency-based instruction provides flexibility for meeting individual student needs. Each student's level of competency may be assessed at the beginning of a course. Modules of instruction may then be used as "building blocks" to design the course to meet learning needs. Additionally, the modular approach permits adjusting the pace of courses to the students' personal needs.

#### SOURCES OF MATERIALS

There are numerous commercial and noncommercial sources of competency-based instructional materials for postsecondary vocational-technical education. The Vocational-Technical Education Consortium of States, which is associated with the Southern Association of Colleges and Schools, has developed competency-based curricula for secondary and postsecondary vocational-technical training. These curricula come in the form of "catalogs" from which institutions may extract materials relevant to their needs. There also are several other consortia of states (e.g., the Mid-America Vocational Curriculum Consortium) that have developed secondary and postsecondary competency-based curricula for vocational-technical education.

The National Center for Research in Vocational Education at Ohio State University is contributing to the development of competency-based curricula in two ways. The Center has produced a process (referred to

as DACUM, for Developing a Curriculum) that is being used rather widely by individual institutions for postsecondary vocational-technical education curricula development. Basically, the process consists of working with five or six employers to identify competencies required for success in a given job and then using this input to develop curricula and course materials. The National Center has also developed competency-based curricula for some occupations. The Center for Instructional Development and Services at Florida State University publishes a newsletter entitled Open Entries, which is a means of competency-based education information exchange. This newsletter covers conferences as well as advances and developments in competency-based instruction.

#### EXAMPLES

To provide a more in-depth view of the current status of competency-based instruction in postsecondary vocational-technical education, its uses in North Carolina and Florida are summarized.

##### North Carolina

The emphasis on competency-based curricula began in North Carolina with the 1975 Annual Report of the North Carolina Council on Vocational Education, which contained the recommendation "that the State Board of Education require that all vocational curricula designed to produce job entry skills be based on performance objectives validated by recent job analyses and task analyses that parallel performance standards to be established for completion of secondary and postsecondary programs, and that the State Board of Education immediately consider the most efficient, expedient method for attaining such a goal." This statement is seen as supporting the State Board of Community Colleges' policy that encourages "formal and informal articulation efforts on a continuing basis between the system of elementary and secondary education and the system of technical institutes and community colleges." Further, it is seen as supporting the basic premise of the North Carolina Community College System, which requires that each institution fully develop the unique educational needs of its own service area and that it maintain effective articulation with public schools, four-year colleges and universities, and employers and employees. For these reasons, the North Carolina Department of Community Colleges is committed to competency-based instruction for vocational/ technical areas.

The North Carolina Department of Community Colleges has developed competency-based curriculum manuals for over 45 vocational-technical areas, such as diesel vehicle maintenance,

child care worker, food service specialist, commercial graphics, and broadcasting technology. All manuals include tasks and competencies, and some manuals also include curriculum models, course outlines, equipment lists, and other information considered essential to implementing a curriculum. Local postsecondary institutions may adapt these manuals to meet the needs of their service areas.

### Florida

Competency-based instruction was begun in Florida over 10 years ago when the state director and other state administrative staff members realized that competency-based instruction would permit individualized instruction and would facilitate more flexibility even as it encouraged greater productivity. System administrators visited other states and individual schools that were using competency-based instruction to assess the costs and benefits. Since that time, Florida has become a recognized leader in post-secondary competency-based instruction.

In the early stages of competency-based curriculum development, Florida designed numerous modules of instruction. However, the amount of materials became somewhat overwhelming. Now, state level personnel focus on developing materials that support local personnel in the development and implementation of curricula and course content. For example, the state has published "Delivering Competency-Based Education: A Teacher's Guide," which addresses issues such as managing the setting for competency-based instruction and sequencing individual learning, and "Individual Instruction for Competency-Based Education," which covers problems and strategies in using competency-based instruction and gives examples of successful approaches used by some instructors.

Florida has also developed college curricula for preparing teachers to use competency-based instruction. Teacher education at the University of Central Florida is based primarily on this approach, and most other universities in Florida that are providing teacher education include components to prepare teachers to use competency-based instruction.

Appendix B.5  
CAPITAL BUDGETS

Appendix B.5  
CAPITAL BUDGETS

---

RECOMMENDATION B.5: BESE Should Require Standardized Procedures For Estimating Annual Capital and Operating Costs and Preparing Budgets For All Programs and For All Institutions.

---

IMPLEMENTATION

1. A clear budget document is the most important single management instrument and allows directors and their local boards to deploy resources where they are likely to prove most effective. Although present accounting procedures meet Federal and State compliance requirements, they do not provide information useful for management decisions. For example, the cost of depreciation of plant and equipment should be included, no matter who paid for it.
  2. In order to assess the effectiveness and fairness of the allocation formula, to measure the performance of schools, to audit expenditures, and to assess budgets, standard accounting procedures must be developed. These accounting procedures should reflect the full costs of school activities, including allowance for the depreciation of plant and equipment.
  3. BESE should invest in the design and development of cost-accounting procedures that fully reflect the costs of resources used in vocational training, that can be adopted with the minimum of technical assistance by all schools, and that can be used on small computers.
-

## BACKGROUND

Although the basic principles in accounting for the expenditure of operating funds are well understood, capital budgets--especially for public enterprises--are less well understood and, as a result, less well prepared. Yet, capital budgets--schedules of what projects will be built or what major repair programs will be undertaken and when--are the basic tools for planning and managing the vo-tech system. But why not include an expenditure for a new training facility or for new equipment in the same budget as the appropriation for staff and fuel required to operate the facility? What is the advantage of a separate budget for capital expenditures?

### WHY PREPARE A SEPARATE CAPITAL BUDGET?

First, capital expenditures yield future benefits that cannot be directly compared with spending that yields immediate benefits. The effects of spending more for staffing in an existing school, for example, last only as long as the higher level of spending is maintained. The benefits of a new school, on the other hand, will not accrue immediately and will be felt well after the construction is completed. The impacts of capital investments are therefore more difficult to assess and more costly to undo than decisions about operating expenditures. Second, the preparation of a separate capital budget, by highlighting the consequences of such actions, makes it much more difficult for directors to cut capital spending when revenues fall short. And, capital budgeting can help reduce the importance of political considerations by establishing visible procedures for considering projects for state funding.

### CAPITAL BUDGETING

The annual capital budget should present project and program evaluations in a form conducive for making capital investment decisions, including not only the construction and rehabilitation of facilities, but those maintenance expenditures that will yield benefits beyond the current year. The exclusion of maintenance has been a major factor in the inability of public agencies to look after their plant and equipment as effectively as many private businesses.



To facilitate choice among alternative projects, the capital budget ideally should contain detailed information for every major capital project and maintenance program (the degree of detail would vary with the size of the item). Schools responsible for few capital projects would compile budgets with less data. The information that should always be collected and analyzed, regardless of the size of the school, is: (1) estimates of the costs of deferring expenditures; (2) the impacts of a capital investment on future operating budgets; and (3) the costs under alternative financing scenarios. The budget could be introduced gradually over time and generally should include the following information:

1. Expenditure

For each plant or equipment investment: basic information on relevant past expenditures, current expenditures, and the projections for future expenditures. For maintenance programs and others that involve ongoing expenditures: expenditures for the previous three or more years.

2. Project Evaluation Information

For major projects, the budget entry might contain a brief summary of: (1) the projected benefits and costs, including a brief discussion of the major impacts that could not be quantified; (2) the net present value; and (3) a summary of how they were calculated; (4) other relevant information from the topics listed above; and (5) an indication of where more detailed information can be found.

3. Projected Impact on Operating Budgets

Capital expenditures influence future operating budgets. The construction of a new building commits the school to additional operating and maintenance costs, and rehabilitation and replacement expenditures may reduce future maintenance costs. Forecasts of these impacts should be included in the capital budget.

4. Financing Options

The capital budget should compare the costs of alternative sources of funds for, or alternative ways of financing, major proposed projects--state funds, lease versus purchase, Federal funding, or private financing.

5. Net Cost of Deferral for One Year

Faced with the difficult choices created by tight budgets, school directors may prefer to defer capital projects or capital maintenance rather than reduce the salaries or staffing levels. Deferral is easy because the costs of deferral--more rapid depreciation and impaired health and safety--do not appear in budget documents. Schools are less likely to underinvest in maintenance if they annually prepare explicit estimates of the cost of deferral.

Section C  
IMPROVING ACCOUNTABILITY

Appendix C.1  
FORMULA FUNDING

Appendix C.1  
FORMULA FUNDING

---

RECOMMENDATION C.1: Budgets of Vo-Tech Schools Should Be Determined By a Formula Based Primarily On Student Contact Hours.

---

IMPLEMENTATION

Each year, the Legislature should appropriate the State's support for vo-tech operating expenditures into a vo-tech fund that would be allocated among schools according to a formula established by BESE and that could be used by directors for a wide range of eligible activities. The formula should be based, primarily, on the number of actual student contact hours, but may include some allowance for fixed costs, some provision to prevent large year-to-year changes in budget levels, and some allowance for cost differences among programs (although GSRI suggests that the latter approach not be adopted). The data are not yet available to allow detailed computations of alternative formulas. For fiscal year 1987-88, GSRI recommends that BESE adopt a simple formula that makes some allowance for the level of student contact hours in schools. In FY 1988-89, BESE should design a formula based upon the following considerations:

1. Formula Base. The measure of student load should be the number of actual contact hours--the average attendance or membership during each scheduled contact hour in each course. BESE would establish the "hourly rate per contact hour." The rate would be established by dividing the total budget appropriated by the Legislature by the number of student contact hours generated within the system in the preceding year by all schools in the system. The contact hours would be calculated by the number of contact hours offered by each approved program (excluding customized training and other special offerings) multiplied by the average daily attendance in each program. Ultimately, budgets would be quarterly, with the hourly rate set each quarter and allocations based on the previous quarter's accumulated student hours.
  2. Fixed Allocation. Small schools and those with low enrollment could be protected by fixed allocation to all institutions. This would reduce the hourly rate.
  3. Grandfathering. During the transition from the present system to full-formula funding, a provision could be adopted that would prevent year-to-year changes in budgets in excess of 10 percent.
  4. Bonuses. To discourage schools from boosting enrollment while tuition remains very low in order to take advantage of the formula, BESE should experiment with funding incentives such as bonuses related to student acquisition of competency, improvements in skills while participating, and ultimate placement in good jobs.
  5. Capital Costs. Ultimately, capital costs (funds for facilities and equipment) should be folded into the formula and schools given the same bonding power enjoyed by school districts.
-

## BACKGROUND

As is true for governance, each state has its own particular approach to funding postsecondary vocational education. Current programs generally were affected by the pervasive community college movement of the 1960s. Area vocational training centers or vocational high schools became technical institutions, which in turn became multi-purpose community colleges. State funding configurations are a function of this varied history and of political forces. There is considerable variety in the comprehensiveness of the system, governance structure, and involved agencies, as well as in the source and amount of funds and budget allocation strategies.

### SOURCES OF FISCAL SUPPORT

In a 1982-83 survey of income and expenditures of public two-year colleges by the National Association of College and University Business Officers,<sup>1</sup> the median total per-student revenue was \$3,296. The sources of this revenue, in terms of median percent of the total, were: tuition and fees, 17 percent; state appropriations, 52 percent; local appropriations, 11 percent; and Federal gifts, grants and contracts, 8 percent. Other sources of support are less significant in weight but may include gifts, grants, or contracts from the state or private sector (including direct or indirect support by business and industry) and revenue from auxiliary enterprises (e.g., the lumber trades program at Haywood Technical College in North Carolina involves a sawmill developed with special state appropriations that, in addition to serving as a training site, is operated as a commercial venture). Gifts, grants, and contracts are increasingly reaching educational institutions through private foundations created by the institution for this purpose.

Even so, at this point the state remains the principal source of revenue. However, most states rely more heavily than Louisiana on both local tax-based revenue and revenue from tuition and fees. The pattern of system and institutional governance and control is a critical component and moderator of fiscal support conventions. These components and conventions generally are rooted in state legislative



authority and mandate. In the 30-year evolution of the state postsecondary vocational education systems, state support has generally grown to larger proportions of the institutional operating revenues. Local control has, to some extent, eroded (although fears of erosion seem more significant than actual loss of local control where it existed).

Because of Federal requirements for a cognizant state agency or board to administer Federal vocational training funds (and because of the ascendancy of the secondary vocational education programs), the state boards of public education have generally had the significant role in allocating Federal vocational training dollars, whether the postsecondary vocational training was under their purview or that of a separate governing board or boards. And, perhaps because of the need of the postsecondary vocational education institutions for substantial support as well as the potential for the contribution of these institutions to the state as well as to the local economy, they have been highly politicized. The point here is that one needs to understand the political forces and not just make simple projections of needs and chart the logical solutions.<sup>2</sup>

Nevertheless, it would seem reasonable to focus on the critical fiscal support component provided by state funds to examine the potential advantages (for curbing local abuses, minimizing duplication of function, closing out progressively less essential and dying programs, etc.) and to examine briefly how the budget and allocation mechanisms are operated. In this examination, we shall try to be particularly sensitive to problems and solutions that have evolved, since most problems have at their root political failure to predict all the important consequences of legislative actions, and since most satisfactory solutions are best expressed in terms of the quality and application of the education and training enterprise that has been developed.

A basic premise that should preface this brief overview has been nicely stated as follows:

Legislators often overlook the fact that a budgetary formula is also an incentive system, a set of prices that will be paid for rendering particular services. For example, formulas that reward

enrollment increases with payments based on average rather than marginal costs will give rise to extensive recruiting efforts, since the colleges may make money on additional enrollments. States that do not differentiate their payments according to program cost differences, paying instead a fixed sum per student regardless of program, have set in place (perhaps unintentionally) powerful incentives for a college to concentrate on low-cost programs. And, where a state seeks to pay for some courses of study and not for others, it should not be surprised when colleges redefine courses into the favored categories.

#### CATEGORIES OF EXPENDITURES

There are a variety of ways that line-item costs of establishing and operating an academic or training institution may be categorized. Capital outlay, personnel salaries and benefits, equipment and supplies, operation and maintenance costs (including contracted services), and student scholarships could embrace and categorize all or most costs for establishing and operating a vocational training institute.

The National Association of College and University Business Officers advocates a system that categorizes operating costs (i.e., costs after capital outlay required to establish the institutional space and plant) as follows:

- . INSTRUCTION--General academic instruction, occupational and vocational instruction, special session instruction, and community education.
- . RESEARCH--Institutes and research centers, individual or project research.
- . PUBLIC SERVICE--Community and cooperative extension services, conferences and institutes, public lectures, radio, and television.
- . ACADEMIC SUPPORT--Academic administration and personnel development, audiovisual services, computing services, course and curriculum development, demonstration schools, libraries, museums and galleries.
- . STUDENT SERVICES--Admissions office, registrar, counseling and career guidance, financial aid administration.
- . INSTITUTIONAL SUPPORT--Central executive-level activities concerned with management and long-range planning and carried out by the governing board or chief executive, academic, or business officers; fiscal operations; administrative data

processing; space management, staff personnel, and records; logistical activities that provide procurement, safety, security, or transportation; faculty and staff support services that are not operated as auxiliary enterprises; and community and alumni relations.

- . OPERATION AND MAINTENANCE OF PLANT--Administration, custodial services, maintenance of buildings and grounds, utilities, trucking services, fire protection.
- . SCHOLARSHIPS AND FELLOWSHIPS--Expenditures financed from current funds, restricted or unrestricted, and disbursed in the form of outright grants to students selected by the institution.
- . MANDATORY TRANSFERS--Legally binding transfers of restricted or unrestricted funds from the current funds group to other funds for the financing of the educational plant; grants agreements with the Federal government, donors, or others to match gifts and grants to loan and other funds.

The particular categorizations that should be employed for a particular class of institutions--or for institutions constituting a system for fiscal purposes--should be determined by the management needs peculiar to the particular configuration of operations and programs. A fiscal category represents, for governance and administration purposes, a definition of an area in which general controls may be exercised. Some of the relevant considerations for publicly supported postsecondary vocational training institutions are as follows:

1. Instructional Personnel Costs--Salaries and instructional support costs (including necessary training equipment) may be subdivided into other program or discipline areas in recognition of differential salary and equipment costs, particularly where different institutions in the system have different mixes of high- and low-cost programs, or in response to the relative weight of particular kinds of courses (certificate programs versus extension courses, for example). The number of instructional positions and salary costs per student will also be dependent on required or available class sizes.
2. Administrative Personnel Cost as Distinct From Instructional Costs--For purposes of determining institutional budgets, a funding authority needs to be concerned about what administrative positions are necessary, how salaries should or do compare with those for instructional staff, and what administrative support functions are desirable or required.

3. Instructional Support Costs--These may be general (e.g., a library or learning resources center serving all students) or specific to course or program (e.g., word processing equipment and stations). Both general and specific instructional support costs may vary over programs and time. Equipment varies in basic cost and in the frequency with which it becomes outdated, as recent advances in word processing and auto mechanics equipment illustrate.
4. Administrative Support and Maintenance Costs--This would include all non-instructional services required to maintain, operate, and preserve the institution, including utilities, necessary contractual services, program and faculty development, etc.

#### THE ARGUMENT FOR FORMULA FUNDING

There are three essential models for distribution of public funds among member institutions in a system: (1) individual allocations, based on some assessment by specified line item of what each institution needs; (2) funding based on some index that has a high relationship (in actuality or logically) with total costs; and (3) differentiated formula funding, where the formula application varies in terms of different costs by program or function, or in terms of the intent of the funding agent or agents controlling the formula to encourage some kinds of programs and services and to discourage others. Although individualized allocation offers in theory the best opportunity to take all factors into account in making funding decisions, the principal argument against it is its susceptibility to political influence and its placement in the hands of laymen decisions requiring judgment about educational issues best handled by educational specialists.

Although formula funding is intended to remove political influence from determining how monies are spent, the more specific-to-costs the formula elements become, the more those costs are identified and exposed, and are thus subject to manipulation by the funding sources. Favoritism to particular institutions may have been removed, but some decisions that are best made by educational specialists may become subject to manipulation purely on fiscal grounds. Such cost-differentiated systems also tend to grow increasingly complex over

time, as new inequities or peculiar needs are discovered by the institutions.

The chief argument for formula funding is its promise of equitable funding among the institutions on a basis that is generally defensible and hence acceptable to all parties involved. The argument for a formula providing a differentiated basis of funding is generally (and best) predicated on the fact of reasonable (or mandated or necessary) differences among the institutions in the system in terms of what their programs cost. Though reasonable in its assumptions (and necessary if, say, one institution is dedicated to high-cost technologies while another is dedicated to low-cost trade skills development), the vulnerability of the differentiated formula is that adjustments are made initially (and may be made continuously from year to year) that reflect the interests of the controlling force behind the formula, as well as the differential and real costs, and the ability of the institutions to state them persuasively.

In the final analysis, we are confronted with the necessity of examining the kinds of decisions that must be made in creating, managing, and progressively modifying an institution's program and in determining where the authority for each kind of decision is best placed--with the teaching faculty, the local administration and/or board, the cognizant department at the state level, the cognizant governing board at the state level, or the legislature. It should be noted that current costs, which inevitably provide the basis for initiating a formula, reflect both the prior decisions and those who were able to make or justify them. This means that in setting a formula, one needs to not only consider the equity needs and potential, but also the reasonableness of the current program and distribution of costs at the time the basic formula is calibrated.

Since needs and priorities change, a formula may require modification over time, so that even if the current formula solution is generally optimal, the forces that drive changes should be deliberately recognized; for (as will be seen from the examination of the solutions by several selected states), though the total amount of funds is necessarily set by the legislature as a function of available resources



and decisions among competing priorities, the nature of the formula and progressive adjustments have an impact on both the kinds and qualities of educational programs that are offered. The reality is that although formula funding is assumed to be a more equitable way of funding schools, it does not guarantee that the budgetary process will be immune to political influence.

#### EXAMPLES

Four states (North Carolina, Maryland, Florida, and South Carolina) will be used to illustrate funding procedures in state postsecondary vocational education systems.

##### North Carolina

In North Carolina, public and postsecondary vocational training is a legislative mandate (initiated in 1963) to the publicly supported technical institutes (currently 32 institutions) and community colleges (currently 26 institutions authorized to provide general college transfer programs as well as technical and vocational education). Total enrollment (in 1984-85) was 624,351 unduplicated headcount students, constituting 121,261 FTEs. Each institution has a local board of control (13 members) and some local tax-based or bond support (usually 10 or 12 percent of operating costs and generally covering land, construction, and maintenance). Although originally under the State Board and Department of Public Instruction, a separate board (of 20 members) and a department of community colleges was created in 1979 (and established in 1981). The Department is large (over 300 staff).

It is generally believed by all parties, including the Community College Board members, that the Board is relatively weak in deference to the General Assembly. This situation has grown out of the new Board's inability to take an active role in policy formulation and out of the fact that its budget priorities are not particularly heeded by the General Assembly, where special allocations to individual institutions at the request of an effective legislator from that area are a tradition.

North Carolina charges a modest tuition which is set by the General Assembly (under \$200 per three-quarter academic year for fulltime students who are state residents). In the recent state budget prepared by the Governor's Office, an increase in tuition was proposed to the legislature. Fees may be set by the institution, but must be within prescribed limits. Tuition monies revert to the State General Fund.

The basic procedures used by North Carolina for enrollment projections to develop operating budget requests, and for the actual allocation, have been in place since 1978. The basic unit



is the "budget FTE," which is equivalent to sixteen membership hours per week for 11 weeks (or 176 student membership hours) per quarter, times the number of quarters in an academic year. Student "membership" hours are obtained by calculating the number of hours a class is scheduled to meet during the quarter times the number of students in membership at the 20 percent point in the schedule, with the exception that for the classes identified as "Non-Traditional Delivery" (learning laboratories, multi-entry/multi-exit classes, or similar types), the student membership hours are the sum of all the hours of actual student attendance in a class in a given quarter. The count for most classes is taken at the 20 percent point to prevent basing allotments on students who drop out prior to that time (indeed, there is sentiment in the General Assembly for taking the count on completers, though presidents protest that commitments to teaching faculty must be made when the class schedule is confirmed at the last date for student withdrawal without penalty).

For "curriculum" courses (program courses in the college transfer area, general education, technical, vocational, and ABE, offered on a credit basis on a regular quarter-to-quarter schedule), projections of FTE are based on the three-quarter traditional academic year. For "extension" courses eligible for funding (noncredit courses that may be offered within or outside the regular quarter or schedule), FTE projections are based on the full, four-quarter fiscal year.

Budget requests are made program by program based on linear projections of actual (membership) FTE over the prior five-year period, with the cognizant State Board (a 20-member governing body established in 1980) authorized to make adjustments on the basis of "additional factors brought to its attention." Where enrollment (as calculated by the FTE) is declining, the budget is reduced prorata, but with protection to a level of 90 percent in the initial allotment of the preceding fiscal year. Also, a small allotment reserve is retained by the State Board for later allocations in the year to cover unanticipated enrollment increases.

In applying the formula, instructional staff budgets are set by dividing the total budget FTE by 22 to obtain the number of instructors required (e.g., the average class size for budget purposes is set as 22 students at the 20 percent point in the schedule). Then, this number of allocated faculty positions is multiplied by a factor expressed as a dollar value to obtain the instructional cost budgets. In 1985-86, the factor value for curriculum instructor positions was \$27,770, and for extension instructor positions, \$10,202. (These are values used to calculate the instructional allotment, not to set or describe average faculty salaries.)

Other costs are added as a percentage of the prior value based on appropriated levels for applicable employee benefits, travel, and

instructional supplies and materials. These addenda brought the value per allocated faculty position in 1985-86 to \$35,696 per curriculum position and \$12,136 per extension position. The value assigned per allocated faculty position can be modified to meet available funds. The values are not average or median salary values, but an index reflecting compromises between requests and allocations since 1978. The formula appears to give the legislature the power to require an average class size of 22 students and to set levels for faculty salaries. Some extension courses (e.g., courses directed toward avocational interest) are excluded from the formula and must be self-supporting from tuition and fees.

The number of projected FTEs also drives the instructional support budget and allocation. Each institution receives a base allotment to cover the president's salary (from a formal salary schedule taking years of appropriate experience into account) plus four senior administrators, 2.6 instructional support personnel, and 3.3 clerical personnel, at per-unit dollar values assigned each position category. The base also includes an amount for relevant employee benefits and \$13,000 for travel by the president, trustees, and administrators. Additional position allotments are calculated as follows: senior administrators, 20 per 1250 FTE; instructional support personnel, 6.0 per 1000 FTE; and clerical support, 6.0 per 1000 FTE. As for faculty, standard dollar values per position are inserted, and other costs (benefits, travel, supplies and materials, postage, etc.) are added as a percentage.

The FTE ranges are also used to prescribe equipment and library costs and to determine construction priorities, using tables that relate increasing dollar values to increasing FTEs (or size of institution). These values, set on an estimate of needs, have not generally been met because actual allocations have fallen below these values. Other additional (non-formula) Federal and state vocational education funds for the handicapped and disadvantaged and for adult training are added to the formula values, with allocation based on the individual institutional's proportion of the total numbers of such students enrolled in all institutions in the system. Maintenance funds are provided through a special appropriation outside the formula, which is called the Human Resource Development Appropriations.

For formula purposes, each institution is granted instructional funds based on a minimum of 400 FTEs. This basic allotment, plus the administrative base allotment, assumes in theory that a minimal critical mass is necessary to operate an institution. In actuality, this base was set to permit minimal funds for several institutions created by political interests but not sustaining enrollments at that level, thus preventing the funding formula from serving to close some institutions.

Other funding is classified as "special allotments." For example, the General Assembly has made a special appropriation for a

"visiting artist" to be hired by each institution with salary funds equally divided among the 58 institutions. Four institutions with particularly high cost programs (Heavy Equipment, Sawmill Operations, Truck Driving, and Marine Technology) have additional allotments based on a weighted FTE factor (e.g., Sawmill Operations FTEs are calculated at a value of 2.1:1). Other special allotments such as high priority, cooperative skills are based on competitive project applications to the Board. Finally, the legislature frequently approves special requests, usually to initiate specific programs or for special purposes presented by the legislator from the area involved.

There are some perceived inequities in the North Carolina formula, as is noted by the presidents of the 58 North Carolina institutions in a recent (1986) study<sup>3</sup>. First, instructors' (and administrators') salaries are perceived by institutional administrators to be too low. This is a result of the need to use the budget funds for more instructors than the allocated number of positions prescribed, or to use funds for other allowable purposes (e.g., instructional supplies). Although some schools have courses attracting and enrolling substantial numbers of students in excess of the 22 student per-class value, some schools have many classes where safety requirements, legal requirements, number of work stations, or demand for smaller classes force small average class sizes. Of particular concern is the extension instruction allotment, which appears not to cover extension costs even when instructors are part-time and paid a token per-hour wage. Many presidents feel this restricts their ability to respond to interests of business and industry for special extension courses relating to basic job skills or upgrading.

Also important are concerns about different costs per type of program and different program mixes from institution to institution. Under local autonomies to allocate money within a category (or, with some restrictions, to transfer funds from one category to another), institutions present a variety of configurations of full- to part-time staff, condition and currency of equipment, etc. They are also sensitive that some expensive requirements have been placed on them (e.g., a computerized general accounting system requiring hardware, software, and personnel time) without special allocation for that purpose. Also, given marked increases since 1978 (when the formula was calibrated) in the number of part-time students (and with a substantially higher headcount enrollment now required to generate one budget FTE), they are quick to point out that numbers of students, not FTEs, determine actual time requirements for some positions (e.g., those related to registration, counseling, financial aid, etc.) Finally, they feel some necessary funds are not provided including faculty development and new program development costs.

## Maryland

Public postsecondary vocational training in Maryland is provided by 17 institutions constituting the state community college system. This system enrolled approximately 65,000 FTEs in 1986, with FTE calculated as the number of student credit hours produced in the fiscal year divided by 30. In that year, total support by source was as follows:

| <u>Source</u>               | <u>Amount</u><br><u>(in Thousands)</u> | <u>Per FTE</u> | <u>Percent</u><br><u>of Total</u> |
|-----------------------------|----------------------------------------|----------------|-----------------------------------|
| State: General Aid          | \$72,700                               | \$1,094        | -                                 |
| State: Benefits             | 23,322                                 | 351            | -                                 |
| State: Total                | 96,022                                 | 1,445          | 41                                |
| Local                       | 76,170                                 | 1,146          | 33                                |
| Student Tuition<br>and Fees | 57,120                                 | 860            | 24                                |
| Other                       | 4,004                                  | 60             | 2                                 |
| Total                       | 209,995                                | 3,160          | 100                               |

Proportions of support from the several sources varied by institution, with state support ranging from 32 percent to 57 percent of the institutional totals in 1986, local support ranging from 20 percent to 44 percent of the totals, and tuition support ranging from 12 percent to 32 percent of the totals. A state board (the SBCC), assisted by a modest staff, is responsible for administering the state aid. Costs of administration (general funds only) in 1986 by the SBCC was \$601,071.

The state funds are administered by the Maryland SBCC under Sections 16-403 through 16-408 of the Education Article for the Community Colleges (Title 16 of the Article). State allocations are based generally on an FTE unit, which is the equivalent of 30 (semester) credit hours produced by an institution in the fiscal year. The legislation defines the state share of support to be 50 percent of the current expenses (but not more than \$980 per FTE), but recognizes four institutions where the state share is 55 percent (but is not to exceed \$1,865 per FTE). For the 13 other institutions, the state assumes a basic annual grant of \$350,000 and \$14 per part-time credit student enrolled, plus a contribution for Social Security.

The legislation also specifies the level of support to be provided by the county or counties responsible and by the students. The county share is specified as 28 percent of current expenses, and the student share is at least 22 percent. A higher county share is specified (32 percent) for three institutions, and a lower student share (17 or 13 percent) for four institutions. Counties and students are authorized by the code to pay more than their specified share.



Additional state funds are provided through a Low Income Student Grant Program to any and all institutions receiving county operating funds appropriations equal to or exceeding the prior fiscal year amount. This special addendum is calculated by multiplying the number of students receiving Pell Grants during the fiscal year two years prior times \$115, with the number of Pell Grant students reported subject to audit.

Budget requests for the system are calculated using the formulas indicated based on the actual statewide enrollment in the fiscal year two years prior to the fiscal year in which payments are to be made.

The legislation also requires that except where special appropriations or reciprocity agreements are made, out-of-state students must also pay, in addition to regular tuition and fees, a special fee equal to the state and county share of the FTE as determined under the legislation. Out-of-county students pay an additional fee equal to the county share per FTE. Counties are free, however, to appropriate out-of-county fees for students attending out-of-county state community colleges, and the state may pay the county portion of any applicable out-of-county fee, from specially appropriated funds, for programs designated as statewide or regional programs.

Local support and tuition and fee charges thus play a large part in support. The state funds come largely as a fixed proportion of the total budget, with the state also largely covering employee Social Security and retirement fringe benefits, and with addenda for service to low-income students. The local boards are vested with approval of the institutional line item or program by program budget, once the total annual revenue from state and county sources is established.

#### Florida

Beginning in the 1973-74 academic year, as enacted by the 1972 Florida Legislature, a former "Minimum Foundation Program" for determining the State's share of operating costs was displaced by a procedure where, for the 28 public community colleges involved, an attempt was made to recognize cost differentials by discipline and program and by size of institution. The FTE, defined as "30 semester credit hours of instruction work," was the unit used for establishing cost rates.

Cost analyses were employed to establish the average full cost per FTE on a weighted basis for all colleges separated into two groups: over 1,300 FTE; and FTE of 1,300 or less. Then, within each of these two groups, relative cost differences among seven different occupational disciplines were determined by calculating the statewide average cost of a given discipline divided by the statewide average cost of all disciplines. For example, if the Biological Science Cost per FTE was \$1,400 and the average cost

for all disciplines was \$1,000, a cost level of 1.4 would be used to express the higher anticipated cost.

The estimate of total funds needed for the system was then determined by using the average or "unitary" cost per FTE, adjusting for inflation between cost analysis year and application year, and further adjusting (downward) by the amount of funds expected from student fees, Federal funds, and local sources. Then, institutional needs were calculated by multiplying the unitary value times the cost level factor for each discipline times the projected FTE enrollment in each discipline for each institution. If the appropriation was less than that requested, the unitary value was adjusted accordingly to provide each institution its proportional share of the total appropriation.

For the 1979-80-81 biennial budget request, modifications were made to adjust the state appropriation to reflect differences in the reduction of the unitary value caused by different fees for credit and non-credit courses, with the purpose and effect of increasing the state funds allocated to those institutions with strong emphasis on non-credit occupational preparatory programs. Also, because of the range of costs for different specializations within each of the seven disciplinary areas, these areas were further subdivided into three categories of level ("technical," "skilled/semi-skilled," and "supplementary"), and the multipliers for enrollment at each level in each discipline were established in a manner similar to that used for the discipline as a whole.

Florida has made one of the nation's most extensive and exhaustive attempts to determine state support of vocational programs on the basis of program rather than institutional or system costs. The current stage of what is an evolutionary process in Florida is reproduced as Exhibit C.1.1 at the end of this appendix. The exhibit is drawn verbatim from an updated summary provided by the system's chief financial officer in April, 1987 and describes the four steps in establishing the Community College Program Fund (CCPF) for Florida.

#### South Carolina

The State Board for Technical and Comprehensive Education in South Carolina, under the legal authority of Chapter 59-53-57 of the Code of Laws of S.C., 1976, has established standard program definitions and funding policies for South Carolina's postsecondary vocational education system. Included are "unrestricted" programs consisting of technical education programs (ranging from focus on a career development objective to a two-year diploma or associate degree); continuing education programs (occupational upgrading, adult education, industrial education, etc.); secondary vocational education (handled by contracts with local school districts under supplementary support from state funds); and, community services (personal enrichment or



conference activity, required to be self-supporting). State funds are allocated to the technical education programs on an FTE (credit hour) basis, and to continuing education programs on a CEU (contact hour) basis. In addition, the technical institutes in the system handle certain "restricted" state and Federal programs under state budgets from such sources as the South Carolina Division of Industrial Development or Federal agencies.

For the calculation of state support for the technical education program, the basic unit of measurement, or FTE, is calculated in terms of unduplicated headcount and quarter credit hours, with one FTE equal to 45 credits. State funds are allocated based on a calculated dollar amount per FTE derived from the credits and courses by individual HEGIS discipline group. All funds received by the institution, including tuition, are treated as institutional revenues and are accounted for on the unitary basis, regardless of source.

In the budget development process, the calculation of projected FTEs for credit courses involves the assumption by each institution that the prior Fall's student credit hours will be attained in the current year, but that Fall enrollment may increase in existing programs and that new programs may also generate additional enrollment. The estimated increase from the two sources is added to the prior experience value, and the resulting projected Fall quarter total credit hours for the institution is converted to an annualized FTE. This is accomplished by multiplying the sum of credit hours projected for the fall term by the ratio of the prior years' Fall-quarter credits divided by 15 to the institution's prior years' annual credits divided by 45. Thus, for credit courses, projections allow for enrollment increase in existing courses as well as from new programs.

The continuing education program relies on the CEU as the multiplier for the calculated dollar amount. Under a policy update of July 9, 1985, projected "continuing education FTE" is determined by projecting the total student contact hours for the fiscal year, and multiplying this value by 0.001423 (one annual Contact Hour divided by 11 Weeks/Quarter divided by 1.42 Contact Hours/Week divided by 45 Annual Quarter Credits/FTE).

Projected costs by institution are calculated for faculty salaries and for indirect costs (exclusive of plant maintenance and operations which are supported by local county funds and add-on student fees with two exceptions).

In projecting costs of faculty salaries, the academic credit FTEs for an institution are generated based on prior-year experience by credit program, with adjustments to compensate for anticipated enrollment increases in existing programs and from new programs. The estimates are based on prior Fall-quarter experience and annualized by multiplying by a factor expressing the ratio of the

Fall FTEs to annual FTEs for the institution. The number of FTE faculty is then calculated, by discipline (or program) using HEGIS categories, using system experienced-based tables showing the ratio of FTE students to FTE faculty by discipline. These experienced-based tables further distinguish between institutions at three size (total FTE enrollment) levels, with larger numbers of FTE students per FTE faculty member as institutional size increases. A standard salary value for all FTE academic discipline faculty is then assumed in generating the cost (i.e., differences in program costs are based on different student/faculty ratios as a function of discipline and institutional size, not different salary levels by discipline).

For continuing education FTEs, the process is simpler. An annual value converting contact hours to credit hour equivalents by using a standard weight is calculated and used to generate the number of FTE faculty assuming a 15:1 student/faculty ratio regardless of course area or institution size, but an average salary rate different from that for the academic discipline faculty (in the formula for 1986-87, the academic salary rate factor was \$25,197, whereas the continuing education salary rate was \$12,598.50, or half the academic rate).

State portions of indirect costs are calculated by summing credit and contact-hour-derived FTEs, dividing by a ratio of FTE students to FTE faculty (which again varies by size of institution), and multiplying the resulting number expressing a number of FTE faculty by the salary rate for credit FTE faculty. This base is further modified by a factor related to size to obtain the formula indirect cost allowance for the institution (in 1986-87, the factor was 110 percent for institutions with 200 or fewer FTEs and 90 percent for institutions with more than 1,300 FTEs).

The sum of the direct (salary) and indirect cost estimates is further modified by a deduction for student fees based on the system average ratio of student fees (adjusted for plant maintenance county funding deficiencies) to total unrestricted operating expenses (less plant maintenance and operations and auxiliary enterprises) for the most current audited fiscal year. Summed across institutions, this yields a "State Base Allocation," which serves as the budget request. If the actual allocation is different, the institutional budgets are modified pro rata (by averaging the [change in available funds percent applied to the difference between current State Base Allocation and prior year allocation plus prior year allocation] with [formula funds percent available applied to State Base Allocation]). To the actual allocation is added funds to cover the required personnel benefits.

The two institutions with plant operations and maintenance costs supported by the state are granted an amount equal to the prior year's actual costs plus an adjustment for inflation, but with the amount limited to the prior year actual until funding is at

100 percent of the formula value. Institutions may also make special requests for "differences...because of different roles and missions which are not provided for (by the formula)."

#### DESIGNING A FORMULA

At the simplest level, it would seem that for a given base year, some index of productive involvement could be developed on a standard basis over all institutions and divided into a total support cost to achieve a per-unit value. The best single index of "productive involvement" would seem to be an enrollment figure, based on student credit or contact hours. Institutional budgets and allocations would then be generated by projecting student enrollment to produce an institutional value on the index and to yield an institutional budget by multiplying the state per-unit value times the institutional index value.

The four examples provided have several implicit but strong messages. First, adjustments may be required for differential institutional costs, which may be reasonably expected to vary as a function of a number of factors: institutional size; average class size; proportion of course completers (unless the enrollment index is an audit of the actual number of day-by-day student contact hours from attendance records); differential costs by program area when institutions offer different configurations of programs (which may stem from different salary levels required to secure instructors, different necessary instructional equipment costs, different numbers of work stations, etc.); and different operational costs (at least one institution in Louisiana must employ additional security staff to protect the state property because of its location). Second, some controls may need to be built into the formula to determine and enforce such things as reasonable average class size, promotion of one kind of training (e.g., regular course work) over another (e.g., extension), minimal institutional size, and reliance on full- or part-time instructors.

The first consideration (differential costs for existing programs and institutions) is a matter of achieving a reasonable equity not only in terms of an enrollment volume index but also in terms of reflecting prior decisions and (in effect) commitments to regions or districts.

The second consideration is a matter of determining what controls are desirable and defensible by the state governance and administrative bodies responsible. A lump-sum institutional allotment would leave local options to achieve many solutions (e.g., additional instructional time by substituting lower-cost, part-time for full-time faculty, and generating additional enrollment index values by offering popular courses). In the earlier point made about funding procedures constituting a powerful incentive system, the burden is on some authority to place priorities on what is to be purchased and to determine a reasonable cost.

As a final note of caution, most states have had difficulty in assuring that enrollment index values provided by the institutions are accurate. Class rolls, like voter registration lists, can be padded without accounting system and audit safeguards. Thus, the essential criteria for the specification of a funding procedure are concerned with:

- . The equity of the procedures for the institutions and districts involved;
- . The proper control of the various kinds of decisions and trade-offs that must be made in operating the system, from determining state allotment at one end and defining what constitutes quality instruction and adequate student services at the other; and
- . The operational manageability and integrity of the information systems to serve as the basis for the formulas.

The degree to which these criteria are adequately addressed in the initial formulation will prescribe the extent of adjustments, beyond those for inflation and state revenue, that must inevitably be made to express new priorities or needs, to correct inequities, or to transfer control of some element from one administrative or governance level to another.

Exhibit C.1.1. The Four Steps in Establishing the  
Florida Community College Program Fund

**Step 1 - Establishing the Base Year Data Matrices**

The purpose of this Step is to develop for each college a matrix which reflects the expenditures for the current year by program and type of expenditure. The source data comes from the most recent Cost Analysis Report (CA-2) and selected expenditures from the Annual Financial Report. The horizontal axis of the matrix contains the following programs:

1. Advanced and Professional Instruction
2. Postsecondary Vocational Instruction
3. Postsecondary Adult Vocational Instruction
4. Supplemental Vocational Instruction
5. College and Vocational Preparatory Instruction
6. Adult Elementary and Secondary Instruction
7. Academic Support
8. Student Support
9. Institutional Support
10. Plant Operation and Maintenance

The first six programs are referred to as the Instructional Programs and the last four as Support Programs.

Examples of the types of expenditures in the vertical axis are as follows:

1. Faculty Salaries
2. Administrative Salaries
3. Professional Salaries
4. Non-professional Salaries (support staff)
5. Expenses
6. Operating Capital Outlay (depreciation amount)

Each college matrix of cost data is then converted to a matrix of ratios by dividing the value in each cell by the total value of all the cells. This matrix is, in turn, used to establish the Base Year Data Matrix by multiplying each ratio by the sum of the current year general appropriation for the Community College Program Fund (CCPF) and student fee revenue; i.e., the operating funds available in the Base Year. The final result of this is a Base Year Data Matrix for each college that reflects its latest expenditure pattern by program and type of expenditure.

**Step 2 - Determination of the Cost to Continue Current Programs**

This is the initial step in building the fiscal requirements for the Budget Year. The underlying assumption of this step is that programs will be continued at the same level and scope of operation as the prior year, i.e., there is no increase or decrease in enrollment (or other workload factors) and there



Exhibit C.1.1 (Cont'd). The Four Steps in Establishing the  
Florida Community College Program Fund

are no provisions for new and improved programs. The cost to continue current programs is based on the following cost to continue factors:

1. Faculty salary increases
2. Other staff salary increases
3. Part-time faculty salary increases
4. Other part-time staff salary increases
5. Price level increases for expenses (materials, supplies, contractual services, travel, etc.)
6. Price level increases for utilities
7. Equipment replacement
8. Library resources requirements

Decisions are made regarding each of these factors and the results applied to each college's Base Year matrix of programs and expenditures. The State Board of Community Colleges in its legislative request will determine the values of these factors as a matter of its established policy, or use price indices forecasts provided by the Office of the Governor.

The House and Senate may use the values of the factors requested or they may develop their own cost to continue budget based on different factor values.

Step 3 - Adjustments for Change in Workload

A. Enrollment Workload Adjustments

It is generally accepted that changes in workload in community colleges are measured primarily by changes in enrollment. Enrollment changes can be either for growth (additional funds) or decline (reduced funds) in the actual enrollment of the individual college. The following outlines the process used to fund this issue:

1. The Legislature establishes the assigned enrollment in the Appropriations Bill. The assigned enrollment was established for the 1984-85 year as the average for 1982-83 (actual), 1983-84 (actual), 1984-85 (FA-3 estimated). This assigned enrollment will be retained for a college until it experiences a workload adjustment.
2. A new three year average is computed for each college in the subsequent fiscal year. For example, the new three year average for 1985-86 was the average of 1983-84 (actual), 1984-85 (actual), and 1985-86 (FA-3 estimated).
3. If the new three year average is different by more than plus or minus 5%, then a college qualifies for a workload issue, otherwise there is no adjustment in funding or the assigned enrollment.



Exhibit C.1.1 (Cont'd). The Four Steps in Establishing the  
Florida Community College Program Fund

4. The calculation of the dollars for the workload adjustment is made for each instructional program as follows:

The sum of the difference between Assigned Enrollment and the new three-year average times the Average systemwide cost/FTE

If the workload adjustment is negative (for declining enrollments), then the reduction in funding is reduced by fifty percent.

5. The Legislatively assigned enrollment will be replaced by the new three-year average which is in fact the new Legislatively assigned enrollment.

B. Facilities Workload

1. When a college adds a new building to its physical plant, additional operating costs are experienced. Based on the specific college's average cost per square foot of operation, funding is appropriated for each new building's square feet of additional area to be maintained and operated.

Step 4 - Funding For Improved and New Programs

This phase of the funding process usually cannot be addressed using a "formula" to determine the need for new funds. Funding is dependent on identifying those areas which need to be improved, or in which new programs are needed and then estimating the cost of accomplishing this objective. The identification of improved and new budget issues is usually done in the master planning processes (SBCC and PEPC), program reviews, and Legislative and State Board of Education initiatives. The following are some of these new and improved issues funded over the past several years:

CLAST/Gordon (English and mathematic improvements)  
College and Vocational Preparatory Programs  
Library Resources  
Instructional Equipment  
Academic Improvement Trust Fund  
Sunshine State Skills Programs  
Implementation of Program Review  
Miami-Dade School of the Arts  
St. Johns River Community College School of the Arts

Exhibit C.1.1 (Cont'd). The Four Steps in Establishing the  
Florida Community College Program Fund

It is important to note that Improved and New Programs can be funded as either categorical programs or as part of the CCPF. Categorical programs are allocated separately from the CCPF and usually require greater accountability in terms of how the funds are spent. Categorical programs may also be grant programs which must be applied for by the college, i.e., the Sunshine State Skills Program. On the other hand, the CCPF is allocated as a lump sum which can be budgeted at the discretion of the local boards even though it is derived from several components in the budgeting process.

In summary, the current process for the Community College Program Fund results in individual appropriations for each of the colleges rather than a formula distribution of monies. By beginning the process with the previous year's cost analysis adjusted to the current year appropriation plus student fees, each college is brought in at its current level of funding. The problem of large shifts in enrollments is minimized. FTE enrollment is not a factor in the process except in workload change.

NOTES

<sup>1</sup>For a summary of the NACUBO survey, see The Chronicle of Higher Education, September 19, 1984, p. 12.

<sup>2</sup>For example, the chairman of a state board in one state has confided the suspicion that the businessmen-legislators on the education subcommittee of the general assembly have depressed funds for the general education components of vocational training to assure a continuing supply of cheap labor.

<sup>3</sup>Breneman, D.W., and Nelson, Susan C. Financing Community Colleges: An Economic Perspective. Washington, D.C.: The Brookings Institute, 1981. p. 37.

<sup>4</sup>National Association of College and University Business Officers. College and University Administration (3rd Ed.) Washington, D.C.: NACUBO. Part 5, Chapter 2.

<sup>5</sup>Davis, J.A., et. al. The North Carolina Community College Study: Mission, Enrollment and Staffing Patterns, Funding Procedures, and Administration and Governance (Final Report). Research Triangle Park, NC: Research Triangle Institute, May 1986.

Appendix C.2

LOCAL BOARDS

## Appendix C.2

### LOCAL BOARDS

---

RECOMMENDATION C.2: The Legislature Should Require BESE To Create Local Vo-Tech Boards.

---

#### IMPLEMENTATION

1. The purpose of local vo-tech boards, appointed by BESE, is analogous to the functions served by the board of directors of a private corporation in approving major decisions related to the running of the school. As members of the local community, board members would inform the director of local training opportunities and would share with him their perspective on important community issues. With the delegation of decision making from BESE to the school, the local board provides an immediate accountability mechanism and would be able to act more quickly than BESE. Boards would be given the following responsibilities:
    - A. To recommend to BESE the hiring or the firing of a director;
    - B. To approve the school's annual budget; and
    - C. To approve the school's annual development plan that indicates goals and how the director intends to pursue those goals.

BESE already enjoys the constitutional power to appoint advisory boards. The proposed boards would be granted additional powers.
  2. BESE staff would review minutes of local board meetings (although no approval would be required) to identify issues that may involve conflict with established BESE policy. BESE would be better able to discharge its constitutional responsibility to oversee the vo-tech system through its expanded evaluation and audit staff (see Appendices A.2 and A.3). By assessing the effectiveness of schools, BESE would concern itself with performance, not procedures. Local boards do not represent any additional bureaucracy, but are an integral part of the process of granting schools greater autonomy. BESE's role in accountability is therefore more analogous to that of a majority stockholder at an annual meeting.
  3. The local board should have no more than eleven unpaid members. Directors would participate with BESE in selecting the board in order to ensure the ability of the board and the director to work closely together.
-

## BACKGROUND

Although the nation's public postsecondary vocational education institutions are considerably diverse in their modes of administration and governance, the state is the standard unit for organization and maintenance of the institutions and educational programs. The existing situation in each state is the result of the historical evolution of institutions and programs and the play of political and economic forces.

During the past four decades, public technical institutes and community colleges have taken their present form and experienced rapid growth and development as a "new" force in higher education. That basic form is characterized by open admissions in terms of:

- (1) admission credentials and low or no cost to enrollees; and
- (2) provision of courses and programs of utility to individuals seeking job skills or personal development and of interest to agents concerned with the economic development of the community or state. The overwhelming majority do not provide student residence facilities and thus serve primarily their communities and those within commuting distance. Educational offerings range from individual courses of varying duration and directed to particular interests to formal one-year or two-year fulltime educational programs resulting in an associate degree or special certification.

### AGENTS OF GOVERNANCE

Administration and governance at the institutional level may involve the following agents:

1. The chief administrative officer of the institution (and any administrative staff).
2. An institutional governing or advisory board (or local individuals or groups of individuals, such as county commissioners). Some states have regional boards responsible for several institutions at this level.
3. A state director and a department of administration at the state level, with administrative responsibilities for the several institutions in the state system.
4. A state governing or coordinating board.
5. The governor and/or the legislature.



By "governance," we refer generally to the function of prescribing the overall policy by which the institution or system of institutions is operated. By "administration," we refer generally to the function of directing and managing the educational enterprise in accordance with the overall policy. Governance authorities usually have certain rights and responsibilities defined by law (e.g., the right to buy, sell, and hold lands and facilities; to enter into contracts; and to constitute the institution or the system in a legal sense).

The placement and functioning of a governance authority (i.e., a state or local board) is essentially a matter of establishing responsibility for obtaining or managing fiscal support at one level or the other. State or local governing boards (as opposed to advisory or coordinating boards or committees) primarily exist to control expenditures or the funding source. Where there is no local tax or bond support, for example, there usually is no local governing board.

At the state level, there may or may not be a governing board; or there may be one with only advisory authority, depending on the degree of control maintained by publicly elected officials (i.e., the legislators, the governor, or a publicly elected board) and on the degree of control residing in local boards. Thus, at a system level (and where state tax or bond support is involved), a special administrative department and accompanying governing board may be named, or the functions may be assigned to an existing educational authority (e.g., that for the public elementary and secondary schools, or that for public higher education).

In either case, authorities are prescribed or limited by state legislation and by the practices of a higher authority and may be pervasive or minimal. Local governing boards may or may not exist, generally depending on whether local funds are involved. They are subject to some allocation of responsibilities from the state or system authority to a degree inversely related to the weight of state-level support and/or the prescribed purpose of that support.

Although there are frequent changes by the states, a fairly recent (1984) survey<sup>1</sup> of the 50 states regarding postsecondary vocational education governance structures revealed that state agencies other than

Boards of Regents generally do not have a great deal of power, but rather serve as pass-through operations for state funding. According to the survey results, a state Boards of Regents serves as the postsecondary vocational education state policy board in only a few states such as Arkansas, Hawaii, Nevada, New York, Ohio, Massachusetts, and Montana. Most of these states also have local boards that are authorized to levy taxes.

The state policy board in 38 of the remaining states are Boards of Education, Boards of Community Colleges, Boards of Postsecondary Education, Postsecondary Commissions, or other similar boards. Of these, 20 states also have appointed or elected local boards of trustees or directors, four also have local advisory councils; two also have district boards, and two have no local governing boards. Eleven of these 20 states authorized local or district governing boards to levy taxes (one of these states provides 100 percent state funding, so authority to levy taxes was not needed by local boards).

Nebraska and New Mexico do not have state-level policy boards or state administrative boards/agencies. In Nebraska, locally elected boards have full governing authority, including the authority to levy taxes. State funds come directly to the local boards from the legislature. In New Mexico, each community college has a Board of Trustees, but these boards have no authority to levy taxes. In Minnesota, the State Board for Vocational/Technical Education serves as the state policy board and the state administrative board/agency, as well as the local administrative board, but it also does not have authority to levy taxes.

A true governing board will have the general responsibility of setting up more specific policies than those delineated by legal or higher authority. And, major areas of policy and fiscal responsibility for public institutions or systems are generally the obligation of the state initiating or convening authority. What agent (e.g., legislature, state board, local board) assumes each responsibility may vary to some extent from state to state, but the essential elements include:

1. The specification of the mission of the system (or institutional role within the system mission).
2. The selection, employment (implying continuing evaluation), and termination of the chief administrative officer of the system or institution (or, in some systems, for the system and institutions).
3. The establishment of whatever policies may be necessary (i.e., beyond those prescribed by law or higher authority) for the guidance of the chief administrative officer in managing the operation of the institution (e.g., selection of faculty and staff, preparing or directing the preparation of the budget, specifying or approving rules and regulations).
4. The specification of criteria or standards and salary scales for administrators, faculty, and staff.
5. The approval of the institution or system budget request (with priorities), and its transmission to any higher fiscal support authority.
6. The approval of additions to the system or institution program (or, at the system level, the establishment of new institutions or the closing of existing institutions).
7. The approval of the structure for courses and programs.
8. The approval of additions to or modifications of courses and programs.
9. The specification of policy in regard to entrance requirements (and who may benefit from the programs).
10. The authority to establish educational standards, to regulate awards, and to grant degrees.
11. The establishment of (or specification of limits to) tuition and fees.
12. The approval of sites, building plans, and configuration of facilities.
13. The authority to solicit and negotiate contracts, to hold and dispose of property, to negotiate leases, and to establish accounting procedures.
14. The authority to elect or appoint trustees (or to specify the procedures for reconstituting the board).
15. The constitution or representation of the institution or the system as a legal entity.<sup>2</sup>

Where state funds are involved, there is always a range of administrative and governance agents, with the legislature at one end and the institutional chief administrative officer at the other. The other elements between these extremes may or may not exist (or may not exist in any effective sense because of failure to provide the

administrative functions with sufficient mass and structure to accomplish objectives, or a failure of a higher governance authority to relinquish in practice particular assigned responsibilities to a lower authority). Some responsibilities can exist only at the levels of the extremes. The legislature must determine what portion of available funds can be assigned to the system (based on the strength of competing needs and priorities). The institutional president must oversee the day-to-day operation of the institution.

Not included in these specifications are a number of responsibilities that traditionally are delegated to lower authority (e.g., the determination of curricular content and selection of texts). These usually are seen as responsibilities of the faculty specialists in the areas involved. This illustrates a basic principle that an educational enterprise works best when the decisions about particular form and structure are made by the members of the system who are most qualified to make them and who are in a position to observe impacts so that desirable modifications can be made and the necessary control can be maintained.

Although levels of governance imply delegation of some authorities at each level to lower levels, each level of governance below the legislature can be routinely preempted by higher authority. This occurs through failure to perceive the criticality of delegation to operational effectiveness, through overconcern for controlling, or through viewing trouble at lower levels as a failure of the involved system members rather than as a failure of policy. A local institutional board may be unhappy with particular faculty members or their practices, but may deal with these more effectively through policy guidelines (and dependence on their chief administrative officer to carry out the policy guidelines), rather than by engaging directly in hiring and firing instructional staff. This example applies to any class of decision making; thus, proper placement of specific responsibility is of critical importance in the enabling legislation and in the administrative policies and rules.

In the simplest sense, the two key elements in any governance structure are: (1) the control of the fiscal resources; and (2) the

control of the selection and oversight of the chief administrative officer for the entity of concern. These elements give rise to two key problems: (1) failure of a higher level to recognize the particular freedoms necessary for the agents at lower levels to operate effectively (i.e., to make decisions that can be appropriately made only at their level of special knowledge and necessary authority); and (2) to have governance responsibility for a chief administrative officer who is selected and maintained through other authorities (e.g., when a chief administrative officer is selected by some authority other than the board responsible for the one selected, when an appointed or legislatively constituted board finds its chief administrative officer elected, and when a local institutional board must contend with a president or director appointed by a higher authority).

In practice, local institutional boards can exercise effective governance (or a controlling, as opposed to an advisory function) only when: (1) their authority is vested in responsibility for investment of local tax or institutional revenue, or the institution's portion of more general (i.e., state) revenue; and (2) they have authority over their chief administrative officer. A local institution board is more concerned with the role and impact of the institution in the community it serves<sup>3</sup>. A state-level board must be concerned with establishing priorities for state needs and allocating resources accordingly. Providing what one community needs at the expense of another is counterproductive.

Another experience-based principle is that the administrative arm of any governing board must have sufficient means to generate the information needed by the board to permit it to set policy and make proper decisions and that the representative of the administrative arm must be active and adept in assembling and presenting the information needed for the necessary and proper decisions of the board. This applies to both state and local levels of administration and governance.

Thus, a governance and administrative system involves some hierarchy of levels, with the top level responsible for specifying the overall mission, securing the fiscal means, and delegating downward the



responsibilities of other administrative/management levels. In this delegation, the lower authorities can be told what to do and either be told how to do it or be left to their own devices within the means available to them. Particular educational programs can be prescribed by the basic legislation, or decision authority can be delegated to a state or local board; or, information structures and criteria can be established that serve as a continuing vehicle for control of the lower levels by the higher levels. An effective system involves careful specification of the authorities and limits of each layer of governance and administration and the placement of particular authorities at a level where there is access to appropriate information for ensuring effective control.<sup>4</sup>

#### CONSTITUTING A BOARD

In addition to the specification of authorities for a board, which is properly a matter for the enabling legislation, certain structural matters also must be considered (and frequently are specified in the legislation). These include the size of the board; the specification of desirable interests, capabilities, or influences of the members; the specification of terms of service; the means of selecting the chairperson and members for the original constitution of the board or its periodic reconstitution; and the committee structure (standing or ad hoc) of the board.

With regard to size, experience has shown that political considerations alone tend to prompt large boards, whereas prompt and effective action places sharp limits on the size of the decision authority. It is not unusual for large politically generated boards of 50 or more members to have most business actually conducted by an executive committee of nine or 12 individuals. There are no hard and fast rules in this regard, but experience seems to suggest that 12 members is an optimum number, with a lower limit of six and a higher limit of 18.

With regard to the specification of desirable interests, capabilities, or influence to be represented by members, it is not uncommon for this to be left to the appointing or electing authority, particularly for state-level boards. Such a practice makes the



configuration of talents and influences dependent on the initiating authority, which in the case of an appointed authority can vary in quality from time to time.<sup>5</sup> At issue here is what capabilities and influences can best serve the needs of the state or area involved within the bounds prescribed by mission. To be considered are:

(1) with regard to relevant capabilities, evidence of managerial or administrative skills, particularly in business and in the technical or vocational specialties involved; and, (2) with regard to influence, such matters as ability to be heard by the higher legislative authority members, to represent the districts or regions involved, and/or to reflect from membership on other boards or authorities certain powers relevant to the system or institution mission (e.g., for a system board, the state secretary of labor or member of the legislative budget commission may be specified, or the institutional level may involve county commissioners, local school board members, etc.). This generally works well where there are interdependencies among the entities and poorly where the entities compete for resources or survival.

What is necessary to keep in mind is the ultimate mission of the institution or system, the kinds of knowledge and experience that are needed to make the mission effective, and the kinds of influence necessary to override purely political considerations at a level that would be deleterious to the mission or to access to reasonable fiscal support. Local board members representing corporations that can help in fiscal support or hiring of graduates can be valuable assets.

With regard to terms of service, board membership seldom is a lifetime proposition. Membership is generally limited to designated terms of service (usually from two to six years) and not infrequently to a number or pattern of terms (e.g., to no more than two four-year terms or to no successive uninterrupted terms). Board members, including the chairman, may be appointed (usually with some prescriptive guideline) or elected. Board chairmen are frequently elected by board members. When individuals are appointed (as by a governor or members of the legislature), the current chief

administrative officer and board members usually engage in an informal lobby to "sell" certain individuals believed to be compatible.

#### EXAMPLES

The governance structures of three selected state systems (North Carolina, Wisconsin, and Oklahoma) are discussed in the following paragraphs, with a concentration on enabling legislation.

##### North Carolina

The Community College Laws of North Carolina<sup>6</sup> state that "The major purpose of each and every institution shall be and shall continue to be the offering of vocational and technical education and training, and of basic, high school level, academic education needed in order to profit from vocational and technical education, for students who are high school graduates or who are beyond the compulsory age limit of the public school system and who have left the public schools." The Act also authorizes the levying of local taxes and the issuing of local bonds for the support of the institutions (though state funds generally cover from about 80 to 95 percent of annual operating costs).

Replacing authority formerly vested in the State Board of Education, the legislation established in 1979 a state board of 20 members, to include (ex officio) the lieutenant governor (or individual designated by the lieutenant governor) and the state treasurer; four members from the state at large and one member from each of six regions, to be appointed with overlapping terms by the Governor; three members elected by the Senate; and four members by the House of Representatives. Normal terms are for six years, with a limit of no more than two consecutive terms. Members of the General Assembly and officers or employees of the state or institutions under the jurisdiction of the board (and their spouses) are not eligible. The board is responsible for electing its chairman, and must meet at least 10 times a year. The state board is responsible for electing a state president, or chief administrative officer, of the Department of Community Colleges, whose staff complement is established by the state board on the recommendation of the president.

The establishment of new institutions (or the conversion of existing institutions to new functions) is subject to the approval of the legislature upon recommendation of the board. Legislatively authorized functions of the board include: setting standards and scales for salaries and allotments; approval of sites, buildings, building plans, and budgets; setting standards for professional personnel, curricula, admissions, and graduation; regulation of student tuition and fees and financial accounting procedures; and approval of any new program unless tuition for the program "will fully cover the cost of the program." The board may withdraw or withhold State financial and administrative support

from any institutions that do not generate "the required local financial support," or when sufficient State funds are not available or when "local educational needs for such an institution cease to exist."

A Board of Trustees for each institution is also prescribed, consisting of 13 members serving for staggered four-year terms. Four are elected by the board of education of the public school administrative unit(s) located in the area the institution serves (determined by the state board), four are elected by the board of commissioners of the county (or counties) served, four are appointed by the governor, and one is the (student) president of the student government association of the institution. All members are required to be residents of the institution's administrative area. These boards are constituted as a corporate body with powers to acquire, hold, and transfer real and personal property, to enter into contracts, and to institute and defend legal actions and suits. Trustees receive no compensation but are provided with costs of travel while on official business. They elect their chairman, vice chairman, and secretary (for one-year terms) and meet "as often as may be necessary" (on call by the chairman or institution's chief administrative officer), but at least once every three months.

The powers and duties of the local boards are explicitly defined to include: (1) the election of the chief administrative officer (subject to state board approval); (2) the election or employment of all other institutional personnel upon nomination by the chief administrative officer, but subject to state board standards; (3) the purchase of any land, easement, or right-of-way (and the acquisition of land by condemnation); (4) the application of admission and graduation standards established by the state board; (5) the receipt, acceptance, application or investment of donations, gifts, and bequests on terms consistent with the legislation; (6) the entrance into contracts for instructional services; (7) doing whatever else is necessary for the exercise of the foregoing specific powers, including "the adoption and enforcement of all reasonable rules, regulations, and bylaws for the government and operations of the institution under (the legislation) and for the discipline of students;" and (8) providing access to military recruiting representatives if access is provided to recruiters representing other occupational or educational opportunities. They may also establish traffic regulations, fines, and penalties; purchase liability insurance; and negotiate annuity or retirement income contracts (and withhold pay for this purpose).

With regard to financial support, the state board provides from sources available to it (primarily the annual allotment established by the legislature) the "Plant Fund" (furniture and equipment, library books, other items of capital outlay, and--on an equal matching basis--funds for land purchase, building, or remodeling buildings); "Current Operating Expenses" (primarily

salaries); and "Matching Funds" to be used with local funds for institutions serving regional (as opposed to district) purposes, for some items. Local funds may be used to supplement state funds (budget submission is required, however). Allocations of state funds to an institution are subject to reduction by the same proportion of any reduction in the local proportionate share. The state board is also authorized to accept, receive, and reallocate Federal funds.

The local tax-levying authority for each institution is responsible under the legislation for acquisition of land, erection of buildings, alterations and additions, maintenance costs (e.g., salaries of janitors, watchmen, and repair employees; cost of utilities; equipment maintenance), and support services (e.g., insurance, tort claims, bonding costs, legal fees). Control of local public funds and local private funds is essentially vested in the local boards. Student tuition and fees for state-supported courses and programs are fixed by the state board, and all receipts of this sort (with student activity fees excepted) are placed in the state general fund.

#### Wisconsin

The mission and basic structure of Wisconsin's postsecondary vocational, technical, and adult education system is restated in Act 379 of 1983, which is a revision of the 1971 legislation. The mission statement defines the principal purposes of the system as: (1) the provision of occupational education and training and retraining programs (including apprentice training) that enable residents to obtain the knowledge and skills necessary for employment at a technical, paraprofessional, skilled, or semiskilled occupation; and (2) the provision of customized training and technical assistance to business and industry in order to foster economic development and the expansion of employment opportunities. Additional purposes include contracting with secondary schools to provide courses consistent with the system's mission; facilitating the transition of secondary school students into postsecondary vocational education through curriculum articulation and collaboration; providing college transfer programs, community services, and self-enrichment activities; basic skills education; and special instruction to assist minorities, women, the handicapped, and the disadvantaged to participate in the work force.

The state board is charged with determining the organization, plans, scope, and development of the system's program. This includes the appointment of a state director with staff as necessary; the approval of personnel and educational programs (unless district approval already exists); the power to receive grants and gifts; the carrying out of Federal programs; the review and approval of proposals by the districts for land acquisition, facilities, rentals, and renovation (and "to encourage district boards to finance capital building proposals"); to establish



uniform district reporting and audit requirements for fiscal, enrollment, program, and other information; to commission an annual audit; to withhold state aid for noncompliance with budget, audit, contracting, and reporting standards established by the board; to establish certain special programs (e.g., for prison inmates or displaced homemakers); to set district policies on employee travel, procurement, and service contracts; and to establish criteria and procedures for the review of district board member appointments by the board.

The district boards established to administer districts (contiguous school districts) consist of nine members resident in the district, including "three employees who have power to employ and discharge, three employees who do not have power to employ and discharge, two additional members, and a school district administrator." At least two members must be elected officials of a county or town board of supervisors or school board (but no two members are to come from the same board). These trustees are to be appointed by a committee (as defined in the legislation) representing the petitioners for the creation of the district (governing bodies of contiguous school districts or counties and municipalities) and serve staggered three-year terms.

The responsibilities of the district boards include "exclusive control of the schools established by it and property acquired for the schools." The district boards receive and deposit (through a district board treasurer) all monies received and approve expenditures exceeding \$2,500; employ and fix the compensation for a district director and all school faculty and staff; publish proceedings of meetings; authorize an annual audit; prepare and submit an annual budget; plan for transportation needs; and cooperate with other public vocational education enterprises and coordinate program sharing. They may sue or be sued; purchase or lease land, buildings, materials, and supplies; construct or improve buildings; and sell property. All conveyances, leases, and contracts are to be in the name of the district. They may also contract for services within prescribed rules, accept gifts and grants, provide transportation at local expense, establish student activity fees, levy property taxes (not exceeding 1.5 mills), issue bonds, or borrow money for construction and capital improvements.

The legislation defines the (open) admission requirements and authorizes the state board to establish uniform tuition and fees representing 27.5 percent of the average operational costs for college transfer programs and fees not less than 12 percent of the combined estimated statewide costs for programs exclusive of college transfer or adult vocational training. The board estimates the statewide operational cost for college transfer and other vocational programs on a per FTE basis and computes state shares of district costs on the basis of district FTE. For a few special interest programs, state aid is calculated on the basis of a specific value per student contact period (e.g., 40 cents for

each 50-minute period of driver training and \$1.00 for each 50 minute period of chauffeur training).

#### Oklahoma

In 1984, Oklahoma legislation redefined the governance and administrative structure for vocational and technical education. This legislation (Article XIV of the School Laws of Oklahoma, 1984) created a new State Board of Vocational and Technical Education consisting of 13 members, which include the State Superintendent of Public Instruction (as board chairman), the six appointed members of the State Board of Education (as ex officio voting members), and six members to be appointed by the governor (five of whom would be appointed with the advice and consent of the Senate), with one from each of the six congressional districts. The Director of the Department of Vocational and Technical Education serves as an ex officio nonvoting member and as the executive officer of the board. Provision is made for staggered terms of appointed members. Regular sessions are to be held once each month, with special sessions on call by a majority of the board members or the Chairman.

The state board is assigned the following powers and duties: the supervision of the Department of Vocational and Technical Education, including the appointment and determination of salary and duties of the director and other department personnel; the supervision of the vocational and technical schools and colleges (24 district institutions with 37 campuses, but excluding technical training institutes of Oklahoma State University at three locations); the administration of Federal vocational-technical education funds designated for the state; the provision for the formulation and adoption of curricula, courses of study, and other instructional aids; the purchase or other acquisition of materials, supplies, and real or personal property necessary for school operation; contracting with other education boards, private educational or training institutions, public or private industry, and community action programs; cooperating and executing agreements with the Oklahoma State Regents for Higher Education; and accepting and providing for the "Administration of any land, money, buildings, gifts, funds, donations, or other things of value which may be offered or bequeathed to the schools or colleges under the supervision and control of said board."

The Act also served to create, as the administrative arm of the state board, the State Department of Vocational and Technical Education. This department may operate and maintain, or otherwise provide for,

... courses of instruction and training in vocational and technical education courses and subjects, and charge students reasonable tuition fees for such instruction or training. The fees shall be deposited in a special fund, which is hereby created, to be known as the state Vocational-Techni-



cal Fund. The fund may be used to pay expenses incurred by the Department in operating and maintaining such classes, and payment therefrom may be upon vouchers signed by a person or persons designated by the State Board of Vocational and Technical Education.

The Department is also empowered to operate and maintain an equipment pool, which is eligible for surplus property and equipment, and from which it may transfer property and equipment to school districts or vocational-technical schools.

The Act also provides for establishing (through the state board) criteria and procedures for establishing area vocational-technical school districts and their government as provided by relevant Articles of the Oklahoma constitution. The area vocational-technical school districts are designated as corporate bodies, and as such may sue and be sued, contract or be contracted with, and hold real and personal estate.

Local governing boards are prescribed to consist of not less than five nor more than seven members to be elected in a manner prescribed by the state board and to "have the same powers and duties that boards of education of independent school districts have." The regulation adopted in 1983 by the state board calls for the election (for staggered terms yielding ultimate five-year terms) of five-members (one at large and the others from each of the four intra-district zones of approximately equal population established by the state board).

The legislation also provides for elections to vote levies not to exceed five mills on the dollar valuation of district taxable property. Local boards may also fund, through bonds, the purchase of land, buildings, and fixtures or the improvement thereof.

The area school district needs are approved as independent school districts, with the state board required to prescribe line-item accounts for budgetary and accounting purposes. Budgets submitted to the state board must include estimates of income from Federal funds. The 1983 regulations of the state board state that a formula allocation plan is used by the state board to determine state aid to area schools. This plan, revised annually because it is based on state (and Federal) funds available, "may include (such factors as) the number of people to be served, the enrollment in the 11th and 12th grades of the participating high schools, the number of full-time adults enrolled, the number of people unemployed, the number of families having income below the recognized poverty level, ability to raise funds locally, the number of approved programs to be offered in the district, salaries paid, the costs of books and instructional supplies and tools, equipment rental, transportation, operation and maintenance of buildings, and fixed charges."

In summary, the local vocational-technical school board authority parallels that of the local public school boards. The basic difference is that the vocational-technical boards have their districts, election procedures, and state and Federal funds moderated through the State Board of Vocational and Technical Education.

## NOTES

<sup>1</sup> Gulf South Research Institute. (1984). Postsecondary Vocational-Technical Education Governance Structure. Baton Rouge: Author.

<sup>2</sup> A recent authoritative handbook (Ingram, R.T., et al. Handbook of College and University Trusteeship. San Francisco: Jossey-Bass, 1980) defines the institutional board's functions as: appointing the president; supporting the president; monitoring the president's performance; clarifying the institution's mission; approving long-range plans; overseeing the educational programs; ensuring financial solvency; preserving institutional independence; enhancing the public image; interpreting the community to the campus; serving as a court of appeal; and assessing board performance.

<sup>3</sup> In this regard, a distinguished veteran trustee and college president has stated: "Considerable judgment and integrity are required, because trustees of a public (institution) have a responsibility, not only to their institution, but to the state for a balanced and effective system of higher education. The trustee must see his institution, not as a competitor with their institutions in the state system, but as a complementary part of the whole." (Fisher, B.C. Duties and Responsibilities of College and University Trustees. Raleigh, North Carolina: North Carolina Board of Higher Education, 1969.)

<sup>4</sup> In this connection, it should be noted that some states have suffered when a new boards have been created without dissolving existing boards and without specifying the limits of authority and responsibility of each. As a result, both sets are generally abandoned, or most authorities of the weaker are stripped by the stronger.

<sup>5</sup> Some of the problems (as later noted) in the authority of the North Carolina State Board of Community Colleges probably exist because the primary qualifications of some members was their dedication to getting their appointing authority elected or their representation of some politically important constituency, rather than any business, management, or relevant technical skills. Thus, the legislature routinely ignores or preempts many recommendations that it has authorized the Board to make.

<sup>6</sup> Chapter 115D of the Education Laws of North Carolina, as amended through 1985.

Appendix C.3  
LOCAL FUNDING COMMISSION

Appendix C.3  
LOCAL FUNDING COMMISSION

---

RECOMMENDATION C.3: The Legislature Should Establish a Commission To Propose Constitutional Amendments To Allow: (1) the Local Election of Vo-Tech Members; and (2) Local Communities To Provide Tax Support To Vo-Tech Schools (With a State Equalization Formula).

---

IMPLEMENTATION

1. Vo-tech schools serve their local communities. The accountability of the director to his or her community is strongest when board members are elected and when local funds are committed to the operation of the school. Both these steps require constitutional amendments.
  2. The local election of board members should depend on the commitment of local funds to the school budget. As the share of local funds increases, the number of board members who are elected rather than appointed by BESE should increase.
  3. The Legislature should appoint a commission to prepare the constitutional amendments that are needed to transfer greater fiscal and management responsibility to locally elected boards. Specifically, the commission should be charged with the following tasks:
    - A. Determining the constitutional powers of the local vo-tech boards;
    - B. Determining the electoral districts for the board members;
    - C. Setting a local property tax rate that local communities may vote to impose to support their local schools and the terms under which those rates may be imposed;
    - D. Designing a transitional process from BESE appointment of local boards, through partial election, to full election; and
    - E. Designing a state equalization procedure to be reflected in the formula funding mechanism that recognizes the differences among communities with respect to their fiscal resources and needs.
  4. The commission should report by March 15, 1988.
-



Appendix C.4  
SELF-GENERATED REVENUES

Appendix C.4  
SELF-GENERATED REVENUES

---

RECOMMENDATION C.4: The Legislature Should Enable Schools To Retain Self-Generated Revenues, Including the Proceeds From Discretionary Tuition Fees, Customized Training Programs Paid For By Employers, and Contracts With Other State and Local Agencies.

---

IMPLEMENTATION

1. Although it has been BESE's intention for schools to retain the proceeds from tuition, the State's fiscal position has prevented that. However, schools cannot rely on State funds alone if they are to adapt and innovate. Therefore, it is essential that they be allowed to retain self-generated revenues. These revenues will not affect the amount received by schools under the formula allocation (see Appendix C.1). The latter is determined by the allocation of the amount appropriated by the Legislature based on fulltime student contact hours.
  2. The State should establish an Enterprise Fund into which annually would be paid an amount equal to the revenues generated by each school in the previous year. Enterprise funds would be appropriated by the Legislature to each school in an amount equal to its revenues generated.
  3. The revenues may be spent at the discretion of the director on activities related to expansions in financial assistance for students, vocational training, including special instruction, faculty training, program development, placement, training, the purchase of equipment, and other functions to be listed by BESE.
-

## BACKGROUND

There are increasing layers of authority governing local vocational-technical institutions (i.e., area, regional, and state coordinating boards are being appointed in attempts to achieve more efficient use of state resources). However, postsecondary vocational-technical institutes and community colleges were established to meet the specific needs of their local areas, and these institutions need flexibility in planning and decision making if they are to successfully design and provide programs that meet unique local needs. One important means for assuring this flexibility is to grant local institutions discretion over locally generated revenues (including tuition).

### TUITION CHARGES

Although tuition charges for public postsecondary education are widely used and accepted, there is no national compilation of tuition for postsecondary vocational-technical institutions separate from public community colleges, technical institutes, and junior colleges. Table C.4.1 presents average tuition fees in these institutions by state. The national average tuition charge for public community, technical, and junior colleges in the Fall of 1985 was \$660.00.

Because tuition is so widely accepted, discussion concerning tuition centers on tuition increases. Rising costs are creating a tension between the desire of most states to make education available and affordable to every adult and the need to have balanced budgets in the face of increasingly scarce resources. There is concern that with increasing tuitions, postsecondary institutions will shut out the financially limited, the disadvantaged, and minorities.

The problem is further complicated by other issues. For example, there is an additional tension between the desire to make education available and affordable and the belief that free courses are not appreciated by students and are abused. Advocates of tuition (or increased tuition) argue that tuition should be used to screen out students who are taking courses for entertainment rather than to prepare for jobs. They point to cases such as California where the

Table C.4.1. Average Tuition in Public Community,  
Technical, and Junior Colleges: Fall 1985<sup>1</sup>

| State         | Average Tuition       | State          | Average Tuition |
|---------------|-----------------------|----------------|-----------------|
| Alabama       | 545 (31) <sup>2</sup> | Montana        | 300 (2)         |
| Alaska        | 800 (8)               | Nebraska       | 573 (14)        |
| Arizona       | 295 (8)               | Nevada         | 243 (4)         |
| Arkansas      | 528 (9)               | New Hampshire  | 1,407 (7)       |
| California    | 100 (96)              | New Jersey     | 749 (19)        |
| Colorado      | 639 (18)              | New Mexico     | 247 (15)        |
| Connecticut   | 508 (16)              | New York       | 947 (45)        |
| Delaware      | 684 (2)               | North Carolina | 150 (58)        |
| Florida       | 550 (20)              | North Dakota   | 903 (4)         |
| Georgia       | 737 (16)              | Ohio           | 1,266 (55)      |
| Hawaii        | 253 (7)               | Oklahoma       | 361 (16)        |
| Idaho         | 350 (2)               | Oregon         | 532 (15)        |
| Illinois      | 593 (45)              | Pennsylvania   | 936 (17)        |
| Indiana       | 984 (14)              | Rhode Island   | 740 (1)         |
| Iowa          | 800 (18)              | South Carolina | 550 (21)        |
| Kansas        | 415 (21)              | South Dakota   | No Publics      |
| Kentucky      | 552 (14)              | Tennessee      | 552 (14)        |
| Louisiana     | 558 (4)               | Texas          | 206 (70)        |
| Maine         | 577 (8)               | Utah           | 617 (5)         |
| Maryland      | 738 (19)              | Vermont        | 1,631 (2)       |
| Massachusetts | 576 (16)              | Virginia       | 691 (26)        |
| Michigan      | 681 (34)              | Washington     | 646 (28)        |
| Minnesota     | 1,115 (21)            | West Virginia  | 482 (9)         |
| Mississippi   | 410 (19)              | Wisconsin      | 687 (40)        |
| Missouri      | 484 (15)              | Wyoming        | 403 (4)         |

<sup>1</sup> Source: 1986 Community, Technical, and Junior College Directory; A Statistical Analysis. Washington, DC: American Association of Community and Junior Colleges.

<sup>2</sup> The figures in parentheses are the number of institutions that reported tuition charges for each state.

implementation of tuition reduced the number of students taking occupational courses "just for fun and games" and also reduced the number of students repeatedly enrolling and dropping out of courses until they achieved an acceptable grade. Tuition is seen by some as an appropriate screening mechanism to reduce student abuse of state resources and as a way of helping to insure that students are highly motivated and job oriented.

Tuition also serves as a means of management control. For example, there is evidence that enrollment figures are being exaggerated at some institutions in some states. Not only is there some evidence of fraud in reported enrollment numbers, but also the value of certain offered courses is being questioned. Tuition charges would require accounting procedures that would generate more reliable enrollment data, and accurate enrollment figures would contribute to sound management.

In addition, tuition charges serve as a means of quality control by providing an ongoing, automatic check on program quality and appropriateness. When tuition (even nominal tuition) is charged, students are less willing to enroll in courses that they do not actually need or for which there is no employment demand. Without students willing to pay tuition, there is less money to operate these unneeded courses. Thus, the charging of tuition (and the numbers of students who are willing to pay tuition as partial reimbursement for services received) serves as a feedback mechanism to assist in ascertaining the appropriateness and quality of the vocational education offerings.

#### EXAMPLES

Seven states have been selected for further delineation of tuition procedures: California, Virginia, Texas, North Carolina, New Hampshire, Oklahoma, and Montana. A summary of each state follows.

##### California

California provides vocational-technical education through its community colleges. Prior to 1984, no tuition was charged to students enrolling in community colleges. Some students were taking courses for "fun and games," using up valuable and

increasingly scarce state resources. Further, some students would enroll in a course, drop out at the last possible moment (when they determined they would not get an acceptable grade), and re-enroll in the course the following session. This pattern was repeated until they achieved an acceptable grade.

California state-level personnel report that tuition has significantly reduced these abuses. The tuition is among the lowest in the nation (at \$5.00 per unit for up to six units and \$50.00 total for more than six units). After tuition was implemented, enrollment dropped somewhat for two years; now it is back up to the prior level. Overall, California state-level personnel attribute positive results to establishment of tuition and do not report any negative results. California does not plan significant increases in tuition in the near future, since community colleges were established to make education available and affordable to any adult.

#### Virginia

The Virginia Department of Community Colleges recently requested and obtained a tuition decrease. Tuition had gone from \$9.00 per credit hour in 1978 to \$17.25 in 1984-85. The Department felt that it was pricing itself out of business and that it could not fulfill its mission of making courses available and affordable to any adult. In 1986, the state legislature decreased the cost to \$17.00 per credit hour. If Virginia had followed the increase pattern of prior years, the cost in 1986 would have been \$18.60 per credit hour.

Following this decrease, the percent increase in enrollment in community colleges was higher than for any other higher education institution in Virginia and greater than the average for community colleges in the nation. In the current session, tuition is being decreased to \$16.95 per credit hour. If Virginia were still on track with the increase pattern of prior years, the tuition this year would be \$19.25. The difference in \$16.95 and \$19.25 per credit hour is costing Virginia \$4.8 million. At \$16.95 per credit hour, Virginia students are picking up 20 percent of the cost of their education. State personnel are expecting additional increases in enrollment as a result of the recent tuition decrease.

#### Texas

Vocational-technical education is provided in Texas through community colleges. Fees are based on a contact-hour formula. For degree courses, the legislature has established a minimum charge per contact hour. However, community colleges operate in a highly autonomous manner and may charge more than the minimum. For some nondegree courses, such as certificate program courses, there is no legislatively established minimum charge, so the local institution may offer the course without charge. Although there



is evidence that this is occurring in some cases, no information could be located on its frequency or impact.

#### North Carolina

North Carolina provides postsecondary vocational-technical education through its community colleges. Fees are among the lowest in the nation (\$4.25 per quarter hour of credit for in-state residents). This is in keeping with North Carolina's philosophy of making education provided by these institutions open and affordable to any adult. North Carolina is considering charging for courses that are now offered at no charge to elderly residents. There is some evidence of fraud in the reported enrollment numbers, and the value of the courses offered is being questioned.

#### New Hampshire

New Hampshire has one technical institute and six technical colleges. Fees are \$1,450 per year for fulltime day students taking 12 credit hours at the technical colleges and \$1,550 per year for a similar student at the technical institute.

According to state-level personnel, fees are set by the state legislature and placed at a level that balances cost with income. By law, the Board of Governors determines fees. Beyond this, there are no laws or policies on what fees will be or how they will be determined.

#### Oklahoma

Oklahoma's vocational-technical institutions are part of the university system. Costs vary by institutional type across the system. For the two-year colleges, where the vocational-technical programs are offered, the cost is \$14.00 per credit hour, with 15 credit hours considered as fulltime. Most of these institutions are on a semester system. Students are now paying 18 percent of the cost of the two-year college programs, which is planned to increase over the next five years to the national average of 25 percent. Oklahoma has charged fees since inception of the system. Fees have been increased every year for the last five years at a rate somewhat higher than actual cost increases. No negative effect on enrollment has been observed, and enrollment has increased each year.

#### Montana

Montana has five postsecondary vocational education centers in addition to its three community colleges. Montana students attending any of the five centers pay a proportion of the full tuition cost based on the number of credit hours they are taking. Students enrolled for 181-360 total hours during a quarter pay 100 percent of the \$198 full-tuition cost. Those enrolled for 121-180

hours pay 75 percent; those enrolled for 61-120 hours pay 50 percent; and those enrolled for 1-60 hours pay 25 percent. In addition, fees for books and other items are charged, with the amount varying by program.

Each of Montana's postsecondary vocational education centers is governed by a secondary school district, but is open to students from throughout Montana as well as to out-of-state students. Much of the schools' support comes from a mandatory (5 mill) and a permissive local mill levy. At one time, there was no tuition for in-district students, but out-of-district students paid tuition. In an attempt to serve all Montana residents, the state legislature set up the current fee structure. Although this makes the schools available to all Montana residents at equal cost, it has some severe disadvantages according to Montana state-level personnel. Local secondary schools are reluctant to impose taxes to support a center that serves students from outside the taxed area. This leaves the centers in a difficult position, since neither the local school system nor the state wants to fund them. State-level personnel in Montana do not see a successful resolution to this issue in the near future, and some predict the loss of 30 to 60 percent of their vocational education centers. To cover the rising cost of the vocational education centers, Montana will increase tuition for in-state residents to \$225 per quarter for 1987-88 and \$235 per quarter for 1988-89.

Appendix C.5  
STUDENT FINANCE

Appendix C.5  
STUDENT FINANCE

---

RECOMMENDATION C.5: BESE Should Assess and Expand Access To Student Aid So That Tuition Increases Do Not Deny Training Opportunities To Low-Income People.

---

IMPLEMENTATION

1. BESE should immediately initiate a study of the adequacy of coverage of student aid for vo-tech students. This study should have three components: (a) a review of applications for aid since the introduction of tuition fees, including a review of what happened to those refused aid; (b) a survey of school aid officers and banks participating in student loan programs; and (c) sampling of those graduating from high school, the unemployed, and other potential vo-tech participants to determine their perception of the availability of aid.
  2. BESE should initiate an annual sampling of enrolling students to determine whether there is a decline in the share of students from low-income households.
  3. BESE should develop contingency plans for the expansion of student loans and other types of assistance should the data indicate that the rising cost of vo-tech is proving discouraging to low-income students.
  4. In conjunction with the Department of Health and Human Resources, BESE should initiate special programs to extend assistance to welfare recipients--including child care and transportation--so that they can enroll. Welfare regulations should be reformed so that the receipt of a student loan does not affect grant eligibility.
-

## BACKGROUND

The primary source of student financial aid is the Federal government. Other important sources are state governments, postsecondary institutions, and other agencies and organizations unaffiliated with higher education. This appendix summarizes aid sources and addresses actions that can be taken for improvement of aid delivery.

### FEDERAL FINANCIAL ASSISTANCE PROGRAMS

There are six major Federal programs of financial assistance for postsecondary education. Three of these are "student-based" in that they provide money directly to the student or the student's parents. These are the Pell Grant Program, the Guaranteed Student Loan Program, and the PLUS/SLS Loans. The remaining three programs are campus-based. Funds are provided to postsecondary institutions that, in turn, provide money to students in accordance with Federal guidelines. These are Supplemental Educational Opportunity Grants, College Work-Study, and Perkins Loans (formerly National Direct Student Loans, or NSDLs). The Pell Grant, Guaranteed Student Loan, PLUS/SLS Loans, and Supplemental Educational Opportunity Grant Programs tend to be of special interest to postsecondary institutions because they do not require state or institutional matching funds. In contrast, the remaining two programs require some amount of matching funds. The Perkins Loan Program requires one matching dollar for every nine Federal dollars; and the College Work-Study Program requires one matching dollar for every four (20:80 matching) Federal dollars.

#### Pell Grant Program

One of the largest Federal student aid programs is the Pell Grant Program, which dispenses over \$3 billion per year. A student's eligibility for an award and the size of the award are determined under the need analysis system known as the Pell Grant Methodology. These grants are based on the financial circumstances of the student's family, the length of time the student is enrolled during a 12-month period, the status of the student regarding fulltime or part-time enrollment (recipients must be enrolled at least half-time), and the cost of

education at the institution the student is attending. These grants are considered to be the "foundation" of financial aid, to which aid from other Federal and non-Federal sources may be added. In fact, many institutions will not consider students for any other aid unless they can prove that they applied for a Pell Grant and were turned down. Pell Grants do not have to be repaid. The maximum award for the 1986-87 academic year was \$2,100.

There are two well-known difficulties associated with the Pell Grant Program. First, funds appropriated by Congress may be cut in attempts to balance the budget. For this reason, it is difficult for students to determine the amount of the award they may receive. Second, information regarding the amount students are receiving for a school year arrives so late that it is difficult for them to make plans. Nevertheless, Pell Grants are an important source of student financial aid.

#### Guaranteed Student Loan Program

Guaranteed Student Loans (GSLs) also are a major source of funds for postsecondary education. Approximately 40 percent of the nation's seven million fulltime students are in the program. The current loan volume is approximately \$7 billion per year. These low-interest loans are made primarily by banks, savings and loan associations, and credit unions. In some cases, postsecondary institutions are the lenders. The loans are insured by a guarantee agency in each state and reinsured by the Federal Government. For new borrowers, the current interest rate is eight percent. For students who currently have a seven or nine percent GSL, the interest rate on additional GSLs will continue to be seven or nine percent. Guaranteed Student Loans is an entitlement program; that is, no dollar ceiling is set by Congress, and anybody who is eligible for a loan may get one. However, in some cases, the student's amount of need may limit the size of the loan.

Borrowers must be enrolled half-time and may need to show Pell Grant eligibility. Loan repayments begin six months after the student graduates, leaves school, or drops below half-time status if the interest rate is eight or nine percent. Repayment begins nine to 12 months after the student graduates, leaves school, or drops below



half-time status if the interest rate is seven percent. The lender generally must allow the student at least five years to repay the loan and may allow up to 10 years. Under certain specified conditions, the repayment may be deferred, as, for example, when the recipient is a member of the U.S. Armed Forces.

#### PLUS/SLS Loans

Parent Loans to Undergraduate Students (PLUS) are for parent borrowers. Supplemental Loans for Students (SLS) are for "independent" students. Both loans provide additional funds for educational expenses. The current maximum interest rate for these loans is 12 percent. Interest rates fluctuate, since they are tied to rates of 91-day Treasury bills. PLUS and SLS loans are made by banks, credit unions, and savings and loan associations.

PLUS enables parents to borrow up to \$4,000 per year (to a total of \$20,000) for each child who is enrolled at least half-time and is a dependent student. Under SLS, independent students may borrow up to \$4,000 per year, to a total of \$20,000. This amount is in addition to Guaranteed Student Loans. SLS borrowers get the same deferments as Guaranteed Student Loan borrowers. However, under SLS, the deferments apply only to principal. Both SLS and PLUS borrowers must begin repaying interest within 60 days, unless the lender agrees to let the interest accumulate until the deferment ends. A PLUS borrower is eligible for deferment if he or she falls into one of several categories (e.g., is a fulltime student).

#### Supplemental Educational Opportunity Grants (SEOG)

Supplemental Educational Opportunity Grants (SEOG) are for undergraduate students having the greatest financial need (with priority given to Pell Grant recipients). The money does not have to be paid back. A student may get up to \$4,000 a year, depending on need, the availability of SEOG funds at his school, and the amount of other aid he is receiving. Generally, grants range from \$200 to \$2000 per year. Each school receives a set amount of money for SEOGs, and when that money is gone, there are no more SEOGs for that year.

### The College Work-Study Program

Each year, the Federal government provides funds to postsecondary institutions that pay students to work for them or for outside nonprofit agencies and institutions. This provides jobs for students to earn money for school. The amount of money a student receives depends on need (although the student need not be from a low-income family), the amount of money the school has for this program, and the amount of aid the student is getting from other programs. Recipients must maintain good academic standing.

Schools set the work schedule, with a usual maximum of 20 hours per week during academic terms and up to 40 hours per week during vacations. Pay is at least the current Federal minimum wage, and earnings may be subject to Federal income tax. College Work-Study Programs are recognized for two outstanding advantages: (1) students are paid to develop basic and/or special work-related skills; (2) working on campus is strongly and positively related to student retention.<sup>1</sup>

### Perkins Loans

Perkins Loans (formerly National Direct Student Loans) is one of the most desirable loans for financing postsecondary education because the current interest rate is only five percent. Preference is given to students with exceptional need. Depending on established need, students may borrow up to \$4,500 if they are enrolled in a vocational program, or if they have completed less than two years of a program leading to a bachelor's degree.

A school may make Perkins Loans available to part-time students and, in some cases, even to less-than-half-time students. New borrowers have a "grace period" of nine months after they graduate, leave school, or are not attending at least half-time. At the end of the grace period, they must begin repaying their loans. If they are not a new borrower, the grace period is six months. Under certain specified conditions, repayment may be deferred.

Some institutions have more Perkins Loan money than others. This is caused in part by the fact that some institutions have been more successful than others in collecting loans and, therefore, have more

money returned to this revolving fund. Further, the Department of Education rewards institutions that are diligent in collecting loans by providing them with new capital for additional loans. However, there appears to be a limit, since some schools with excellent repayment rates report that they no longer receive these rewards. The money is going to help other schools, such as those that have had the program for a short period of time.

#### STATE GOVERNMENT FINANCIAL AID PROGRAMS

Every state offers financial assistance to postsecondary students. In 1983, 1,300,000 students received \$1.05 billion in need-based state aid, and 261,000 students received \$110 million in non-need-based state aid. States spending the most on student aid (in order) are: New York, Illinois, California, Pennsylvania, and New Jersey. States where the average award is \$1,000 or more are: Alaska, California, District of Columbia, Iowa, South Carolina, and Texas. Middle-income families earning over \$25,000 represented 16 percent of all grantees and received 18 percent of all grants.<sup>2</sup>

Traditionally, state financial aid has been in the form of loans, grants, and scholarships. Although these are expected to continue, there are noticeable new trends. States are seeking and finding new ways to generate dollars to support these loans, grants, and scholarships and are developing innovative ways to help qualified students and their parents with the cost of postsecondary education.

#### Examples

Most, if not all, states participate in the State Incentive Grants Program. Created by the Federal government in 1972, this program requires 50:50 matching by the participating states. To be eligible, students must meet specified eligibility requirements, including demonstration of substantial financial need. Awards generally range from \$200 to \$1,500 per year.

#### California

In addition to participation in Federal financial aid programs, California has two major grant programs, known as

the Cal Grant Programs, which are administered by the California Student Aid Commission. These grants are available to students with established financial need. Cal Grant A recipients must meet the grade-point average requirement, reside in California, and demonstrate financial need. Awards, applied to fees, are renewable to eligible students. In 1982-83, the University of California, Berkeley, a public institution, dispersed \$2,328,010 in Cal Grant A funds to 3,132 students. The average award was \$743. Preliminary figures in 1983-84 show an amount of \$2,517,355 dispersed to 3,239 students. The average award was \$777. Cal Grant B is available to students entering a postsecondary institution. Recipients must be California residents demonstrating financial need. Awards are applied to fees and include a stipend.

#### Minnesota

Minnesota's student aid commission provides scholarships of up to \$800 per year to qualified students who enroll in any of the state's two- to four-year public or private institutions of higher learning. These scholarships are renewable for four years, depending on continuing scholastic achievement and financial aid.

#### New York

New York has developed a loan program providing up to \$1000 per year for vocational, undergraduate, and graduate students through some banks and lending agencies.

#### New Trends in State Financial Aid

In an attempt to generate new dollars to support financial assistance to students, some states are raising money on the tax-exempt bond market. States that have done this include Illinois, Massachusetts, Florida, Connecticut, Iowa, Pennsylvania, and Maryland.<sup>4</sup> States are also developing innovative ways to help qualified students and their parents with the cost of postsecondary education. For example, some states are providing tax deductions for money that families dedicate to postsecondary costs. This represents an indirect form of financial aid.

Two such programs are offered in New York. Under the Tuition Deduction program, parents may take state deductions of up to \$1,000 of the tuition paid for each dependent who attends college within the state. Under the PASS program, parents may establish a PASS fund for their child's future college education and take as state tax deductions

the sums contributed to the fund and the interest earned by the fund.<sup>5</sup> Further, New York has a Tuition Assistance Program (TAP) that provides funds to offset the community colleges' tuition and fees, which averaged \$947 in 1985-86. To qualify, state residents must demonstrate financial need.

An increasing number of states are offering tuition aid in return for post-graduation services. Occupational areas where the state is expecting a shortage of qualified workers are identified, and repayable scholarships are provided to students entering postsecondary programs in these areas. If recipients actually fill jobs within the state in these occupational areas for a set period of time (e.g., three years), the scholarships are "forgiven." If the recipients decide, after graduation, to enter another occupation field, the scholarship money must be returned to the state.

#### INSTITUTIONAL FINANCIAL AID PROGRAMS

Most postsecondary institutions have their own financial aid programs. Sources of funding for these programs and eligibility rules differ widely among institutions and among programs within an institution. Two programs that have special advantages for postsecondary vocational-technical education institutions are cooperative education and apprenticeships.

##### Cooperative Education Programs

Postsecondary institutions may work out agreements with employers that permit students to alternate formal study with periods of career-related work. Generally, students may work an alternating pattern, a parallel pattern, or summer only. In the alternating pattern, students attend school one semester or quarter and then work for one semester or quarter. In the parallel pattern, students work in the morning, afternoon, or evening and then attend school during part of the remaining time.

The primary disadvantage of cooperative programs is that completion of a degree may take longer. However, the program's numerous advantages tend to outweigh this disadvantage. Besides earning significant portions of the cost of their education, students may also gain valuable work experience in their occupational field.



Cooperative program students are not usually burdened with long-term loans after graduating and have a marked advantage in gaining a permanent position with the employer.

The Federal government employs more cooperative education program students than any other single employer. States desiring to enlarge their cooperative education programs need to work closely with the Federal government, as well as with large private employers and small entrepreneurs. Although cooperative programs are usually associated with degree programs, use of cooperative education in conjunction with certificate programs should be explored.

#### Apprenticeships

Apprenticeships combine on-the-job training with related technical instruction. An employer provides a skilled worker (journeyman) who teaches the apprentice while the apprentice is "on-the-job." Related technical instruction is required and is usually provided by the employer, a correspondence course, or a local community college or technical institute. Wages usually begin at about half the journeyman rate, but are never below the minimum wage. They rise as the apprentice advances in the program. Advantages and disadvantages of apprenticeship programs are similar to cooperative work programs. Apprenticeship programs usually take three to four years to complete.

The potential for cooperation between apprenticeship programs and postsecondary vocational-technical institutions remains relatively untapped in most, if not all, states. Apprenticeship programs usually require at least 144 hours of related instruction per year. The head of one state's Department of Labor, which serves as the accrediting agency for the national program (established by Congress by the Fitzgerald Act of 1937), expressed strong interest in strengthening the relationship between apprenticeship programs and postsecondary vocational-technical institutions in his state. It appears that such cooperation would benefit the apprenticeship program, postsecondary vocational-technical institutions, employers, and students.

#### OTHER AGENCIES AND ORGANIZATIONS

Financial aid is available to postsecondary students in the form of grants, scholarships, and loans from professional associations,



fraternal organizations, religious groups, charities, service organizations, foundations, national corporations, and small businesses. There are also contests that students may enter to win financial aid. Some of these financial aid programs are administered by the sponsoring agency or organization. Others are administered by state-level organizations established to help administer financial aid for higher education. As an example, the College Foundation, Inc., located in Raleigh, NC, administers student financial assistance programs for the James E. and Mary Z. Bryan Foundation, Inc., the Smith Richardson Foundation, Inc., the Byrum-Mansfield Memorial Student Loan Fund, and the Broyhill Foundation, Inc.

One other source of student financial aid that is especially noteworthy for postsecondary vocational-technical institutes is employer assistance. Many employers help their employees with the cost of education. Some pay only tuition, but others also pay the cost of books and, in some cases, even parking fees. The Deficit Reduction Act of 1984 complicated use of this avenue for financial aid. Specifically, as a result of this Act courses must be job-related to qualify as an employee benefit. A course paid for by the employer that is not job-related must be declared as taxable income. This appears to present more difficulty for four-year institutions than for vocational-technical institutions, since it is probably more difficult for a person in an entry-level position to demonstrate that a history course is job-related than to demonstrate that an electronics course is job-related. Postsecondary institutions could assist their students by developing and implementing an on-going program to encourage employer-assisted education.

#### IMPROVING STUDENT LOAN PROGRAMS

The Federal system is under considerable strain. The default rate on guaranteed loans is about 10 percent, many grants are made improperly, and many low-income students cannot borrow enough to finance their education. In most states, there are opportunities for reducing the cost of the system and for increasing access to funds for some students.

Analyses of Louisiana's student financing system should focus on two factors: (1) whether the programs aid all potential students in need (several states have used state resources to extend the amount that students can borrow or can be granted); and (2) how efficiently the program is administered. If the default rate rises above a certain level, the amount repaid by the Federal government falls (to a minimum of 80 percent), and the rest must be paid by state taxpayers.

Almost all states have extended the Federal programs with state credit. In most cases, the extension is to provide greater assistance than that provided under Federal programs that have failed to keep pace with the rapidly rising cost of education.

The Federal caps on loans and Pell grants means that, without supplementary assistance, low-income students are unable to attend. In fact, nationwide, low-income students are a declining share of enrollment. A diagnosis of Louisiana's education financing system should focus on this issue and determine whether additional state aid is required.

In some states, some eligible students may find it difficult to get a guaranteed student loan because smaller financial institutions may be deterred by the paperwork and are unwilling to participate in the program. This problem can be identified by a review of the organization of student loans within the state. The solution may require the guarantee authority to undertake more aggressive marketing of the program and to process the paperwork for small lenders. The problem might also be addressed through reform of banking regulations to allow out-of-state banks to penetrate the student loan market. Both Chase Manhattan and Citibank are marketing student loans nationwide and have developed computerized systems that allow them to process loans at a fraction of the cost that small banks incur.

There are two major functions that a state must perform to run a student aid program: (1) originate loans; and (2) guarantee the loans. This can be done either through one or two state agencies, or through private, not-for-profit agencies. As a general principle, the two functions should be separate, so that the guarantee agency provides a check on the quality of loans made by the funding entity.

In Wisconsin, the State Higher Education Loan Board (HEAB) is the major originator of loans (and is the secondary market for those originated by banks). Education institutions process applications and then submit the applications. HEAB obtains a guarantee for the loan from the Wisconsin Higher Education Corporation and forwards the funds to the student.

By contrast, Nebraska operates a decentralized system. The Nebraska Higher Education Loan Program (HELP), a private non-profit corporation, was designated as the sole secondary market in the state. HELP educates local banks about the program, assists in making loans, and creates a secondary market for loans when the banks wish to sell them.

In most states, there is little incentive for private lenders to exert any caution when lending, since the state guarantee covers 100 percent of the loan. The amount that the state agency receives from the Federal government (if the loan was made under the Federal Guaranteed Student Loan Program) depends upon the default rate in the state. A high default rate is a clear symptom that the program is not being run well.

Nearly half of all states operating student financing programs have contracted with private institutions to service the loans (make sure that payments are being made to the lender) and to pursue delinquent loans. Evaluating how well the system is operating is much easier if there are data from different contractors to evaluate. Competition may encourage better management. California has contracts with three private agencies, which are in perpetual competition to expand their contracts. Colorado, Iowa, and Mississippi perform some servicing in-house, which allows them to assess how well their private contractor is performing.

States with high default rates can examine two prescriptions to deal with the problem: (1) defaulters can be pursued more rigorously (after a defaulted loan guarantee has been covered by the relevant Federal agency, the state may keep the proceeds from any money collected); and (2) institutions with very high default rates can be required to maintain certification or eligibility for loan guarantees

(Pennsylvania estimates that its default rate would be cut in half if 30 of the state's eligible postsecondary institutions were excluded).

#### FINANCING TRAINING FOR WELFARE RECIPIENTS

Poor people are less educated and have fewer marketable skills than the general working population. Many regard their own lack of human capital as the most important barrier to achieving self-sufficiency. Formal training has improved employment prospects and raised earnings of participants with little work experience and poor education. Some model programs have proved successful paths to self-sufficiency.

Yet, few poor people participate in education or training programs. In 1983, only two percent of AFDC mothers were in school, and few dislocated workers enrolled in retraining. Finding better ways to invest in human capital among the economically disadvantaged may be the most important policy to reduce poverty and to expand the workforce. One way to doing this is to remove the penalties imposed by the transfer payment system on those enrolling in training programs. Another way is to make human capital investments more easily afforded by those with low incomes.

Ensuring that low-income people can afford to pursue education and training programs requires: (1) measures that ensure they do not lose their eligibility by virtue of enrolling; and (2) supplementary financial assistance to pay both direct and indirect expenses.

#### Maintaining Eligibility for Benefits

AFDC recipients who enroll in education or training courses may not be able to afford books, supplies, equipment, transportation, and child care on top of tuition and fees. Although the law states that "expenses reasonably incurred for child care" are part of the cost of college attendance when computing grant eligibility, neither regulations nor practice reflect this.

In addition, state social service agencies may count grant, scholarship, and loan assistance from state, institutional, and private sources as income if they are used for other than tuition and reduce welfare benefit levels correspondingly. An AFDC family with a member enrolled in college is likely to have benefits reduced even if the

student receives only enough aid to cover direct and indirect educational expenses. The entire amount of student loans is counted as cash income for the purpose of determining Food Stamp allotments, so that AFDC recipients who return to school lose most or all food stamps.

In Wisconsin, agreements between welfare and education officials protect recipients by guaranteeing that education aid will not threaten transfer payment benefits. States can protect against loss of benefits for recipients returning to school by setting up special accounts to pay educational expenses (rather than providing direct loans or grants). Maine has used this strategy to prevent loss of Food Stamp benefits.

#### Financial Assistance

Fulltime training programs are costly even though tuition is low. Participants suffer reduced earnings and may need to pay for child care, transportation, and other costs. These expenses may deter those with limited incomes. They cannot easily borrow to pay for training because they have no collateral. The limits on Federal college grants and loans has led to a sharp decline in the share of freshman classes made up of low-income students. Firms underinvest in teaching basic skills because their employees can move on to other firms before employers have recovered their investments. Tax laws also inhibit training by not allowing individuals to deduct education expenses in areas not directly related to their present occupation. Thus, it has fallen to the public sector to finance much of the nation's training effort.

The transfer system can lower the cost barriers to training by pointing recipients to existing opportunities--Maine has directed AFDC recipients to different openings--and by creating new opportunities--California offers financial aid and counselling to AFDC mothers attending community colleges through its Cooperative Agencies Resources for Education program. BESE should consider creating a direct loan program of its own in order to increase the availability of funds above the \$2,500 allowed under the Guaranteed Student Loan program. Federal

JTPA funds could be used to augment the aid available for poor students.



NOTES

<sup>1</sup>Barley, R. L. (1986). How and Where to Get Scholarships and Financial Aid for College. New York: Arco Publishing, Inc.

<sup>2</sup>Ibid.

<sup>3</sup>Ibid.

<sup>4</sup>Leider, R. (1984). Your Own Financial Aid Factory. Alexandria, VA: Octameron Press.

<sup>5</sup>Hawes, G. R. and Brownstone, D. M. (1984). The College Money Book: How to Get High-Quality Education at the Lowest Possible Cost. New York: Bobbs-Merrill Company, Inc.